

Performance and characteristics of German environmental policy: overview and expert commentaries from 14 countries

Weidner, Helmut

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DISCUSSION PAPER



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**Performance and Characteristics of German
Environmental Policy. Overview and Expert
Commentaries from 14 Countries.**

Helmut Weidner (ed.)

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Wissenschaftszentrum Berlin für Sozialforschung
Reichpietschufer 50, D-10785 Berlin

Tel.: +49/30/25491-0 • *Fax:* +49/30/25491-684
E-mail: wzb@wz-berlin.de • *Internet:* <http://www.wz-berlin.de>

Performance and Characteristics of German Environmental Policy. Overview and Expert Commentaries from 14 Countries.

Summary

For over 25 years, Germany has been pursuing a modern environmental policy with some unique institutional and legal features. Compared internationally, it can be credited with some notable successes, although these have come at great financial and bureaucratic cost. During the 1990s, as a consequence of the serious deterioration in the economic situation, pressure on environmental policy from the business sector has been growing: demands include deregulation, privatisation and that Germany no longer "goes it alone". Environmental organisations and independent experts fear that the present government is doing too much to accommodate these critics, and that environmental capacity generated to date is thereby being harmed, in particular through the removal of participation and intervention opportunities for individuals and environmental organisations, as well as through cuts in funding for environmental bodies and research. On the other hand, as the "technocratic approach" (curative & end-of-pipe measures) ever more clearly reaches the limits of its effectiveness and now that a broad consensus on the importance of working towards sustainable development has been reached, the volume and complexity of the work facing environmental policy have greatly increased. What is therefore required is increased environmental policy. This is the tense situation in which German environmental policy finds itself today. The coming years will show whether, as the writer believes, this is nothing more than a marked but temporary slowing-down of the environmental policy dynamic, or a serious reversal, as is the opinion of some of the experts who were asked to comment on German environmental policy, and whose commentaries are printed here.

This discussion paper starts with a brief sketch of the development of German environmental policy. There then follows a description of some of its deficits, on the basis of commentaries (analysis and criticism) by environmental experts from 14 countries, including Germany. In particular, as a result of the numerous critical observations on the performance of German environmental policy, the authors earlier assertion as to its leading position in the international field is considerably qualified. Afterwards, the author brings out some general aspects which play a part in the environmental policy of many countries, and which are made clear by the commentaries. In conclusion come the expert commentaries themselves. In many cases, the reader will gain thereby a deeper insight into the central problem areas in the environmental politics of the various countries. In the appendix can be found brief information on the position, main research areas and current environmental publications of the experts.

Leistungen und Merkmale der deutschen Umweltpolitik. Überblick und Expertenkommentare aus 14 Ländern.

Zusammenfassung

Seit über 25 Jahren wird in Deutschland eine moderne, institutionell und rechtlich ausdifferenzierte Umweltpolitik betrieben. Sie hat im internationalen Vergleich einige bemerkenswerte Erfolge zu verzeichnen, die allerdings mit recht großem finanziellen und bürokratischen Aufwand verbunden sind. Im Verlauf der neunziger Jahre hat aufgrund der stark verschlechterten Wirtschaftssituation der Druck aus dem Wirtschaftsbereich auf die Umweltpolitik zugenommen: Gefordert werden unter anderem Deregulierung, Privatisierung und der Verzicht auf "nationale Alleingänge". Von Umweltorganisationen und wissenschaftlichen Experten wird befürchtet, daß die gegenwärtige Regierung dieser Kritik zu weit entgegenkommt und dadurch die bisher geschaffenen umweltpolitischen Kapazitäten - insbesondere durch den Abbau von Partizipations- und Interventionsmöglichkeiten von Bürgern und Umweltorganisationen sowie durch die Kürzung der Finanzmittel für Umweltforschung und Umweltbehörden - schwer beeinträchtigt werden. Andererseits haben aufgrund ständig sichtbarer werdender Grenzen des bislang vorherrschenden "technokratischen Ansatzes" (kurative end-of-pipe-Maßnahmen) und des inzwischen erreichten breiten Konsenses, eine nachhaltig-umweltgerechte Entwicklung anzustreben, das umweltpolitische Aufgabenpensum und seine Komplexität stark zugenommen. Erforderlich ist daher die Stärkung der Kooperationsfähigkeit der umweltpolitischen Akteure auf allen Ebenen und die Schaffung einer integrativen Umweltpolitik. In dieser Spannungssituation steht die deutsche Umweltpolitik gegenwärtig. Die nächsten Jahre werden zeigen, ob - wie der Herausgeber meint - es nur zu einem zeitweiligen Abbremsen der umweltpolitischen Dynamik oder zu einem schweren Rückschlag kommt, wie auch einige Experten meinen, von denen Kommentare zur deutschen Umweltpolitik erbeten wurden, die hier abgedruckt werden.

Im vorliegenden discussion paper wird ein knapper Überblick über die Entwicklungslinien der deutschen Umweltpolitik gegeben (Kap. 2). Im Anschluß daran werden auf der Grundlage von Kommentaren (Analysen und Kritiken) von Umweltexperten aus 14 Ländern (inkl. Deutschland) zur deutschen Umweltpolitik einige ihrer Defizite gezeigt (Kap. 3.1). Insbesondere wird aufgrund zahlreicher kritischer Kommentare zur Performanz der deutschen Umweltpolitik ihre frühere Einstufung durch mich als international führend erheblich relativiert. Danach (Kap. 3.2) werden einige generelle Aspekte herausgearbeitet, die für die Umweltpolitik vieler Länder eine Rolle spielen, wie durch die Kommentare deutlich wird. Schließlich werden die Kommentare der Experten wiedergegeben (Kap. 4). In zahlreichen Fällen bekommt der Leser hierdurch auch einen vertieften Einblick in zentrale Problembereiche der Umweltpolitik der jeweiligen Länder. Im Anhang finden sich in knapper Form Informationen zur institutionellen Position, zu den Hauptarbeitsbereichen und zu den aktuellen umweltrelevanten Publikationen der Experten.

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1. Introduction

In preparation for an international research project, "National Environmental Policies - A Comparative Study of Capacity-Building",¹ I wrote a study on the development of modern environmental policy in Germany. This study was intended to review the most important phases in its development since 1970, identify its main characteristics and discuss its effects. It was published as a WZB discussion paper, "25 Years of Modern Environmental Policy in Germany. Treading a Well-Worn Path to the Top of the International Field".²

In autumn 1995, I sent this study to experts on environmental policy from various countries and invited them to write a brief commentary on Germany's environmental policy, pointing out its failures or successes, noteworthy features, and/or interesting differences or similarities with respect to their own countries' experience with environmental policy. I was pleased to find that experts from 13 foreign countries responded to this request. All of them are well-known, even outstanding experts in this field, many of them are also very familiar with Germany's environmental policy, having carried out research and published on the subject. In addition, three German experts, all leading experts in their respective disciplines, agreed to write a commentary from their own academic perspectives (ecology/global challenges and law).

Since the study on environmental policy in Germany was published, there have been some new developments, and some tendencies which were not so clear at the time of writing have taken on a more concrete form. This could clearly not be reflected by the experts in their commentaries.

The primary intention of this consultation was to gain a more precise and comprehensive picture of the quality of German environmental policy and its relative position - in particular its advantages and disadvantages - in comparison to other countries. This also has the associated indirect effect that the reader learns at the same time something of environmental politics in other countries from the commentaries. It should be stressed here - as is done at greater length below - that the commentaries show how Germany's "pre-eminence" in environmental policy only holds for a few limited areas, and that these areas often tend to involve conventional measures (e.g. technical solutions), which, according to broad scientific thinking, will not be sufficient to solve the new global environmental problems. Innovative and flexible approaches are recently hard to find. In this respect, Denmark, Sweden and, especially, the Netherlands have taken on a leading role in recent years. Finally, the commentaries show clearly that German environmental policy was heavily characterised by the fact that Germany has been economically a very rich country; in this regard, I may have been too optimistic in my assessment that the present economic crisis - the most severe since the end of the Second World War - will have

¹ This research project, involving experts from 13 countries, was funded by WIDER/The United Nations University and the German Federal Ministry for Education, Science, Research and Technology (BMBF). It was jointly organised and carried out by the Environmental Policy Research Unit/Free University Berlin and the Research Unit Standard-Setting and the Environment/Social Science Research Center Berlin. Its main result - a collection of systematically prepared case studies describing the environmental policy of 13 countries in terms of capacity-building - was published in this year (Martin Jänicke/Helmut Weidner, editors, *National Environmental Policies. A Comparative Study of Capacity-Building*. Berlin, Heidelberg, New York, etc.: Springer 1997). A follow-on project, covering other countries, is in preparation.

² This study is available as discussion paper no. FS II 95-301 from Wissenschaftszentrum Berlin (WZB), Presse- und Informationsreferat, Reichpietschufer 50, D-10785 Berlin, phone +30-25 491 513/670 (send DM 1,- in stamps or coupon-réponse international).

no fundamental influence on the further development of environmental policy. In fact, it has become evident recently that it is casting an ever deeper shadow on environmental policy and much will now depend on the strategic capabilities of environmental proponents.

In the following I give a brief overview of the development of environmental policy in Germany (chapter 2), which is more or less a heavily abbreviated version of the 1995 discussion paper, although it has been amended to take account of relevant developments since then. There then follows a summary of the most important discoveries to be gleaned from the expert commentaries (chapter 3), which are then themselves printed (chapter 4), alphabetically by country, except for Germany, whose commentaries appear at the end. The Appendix contains information on the writers.

2. Environmental Policy in Germany: A Brief Overview

Twenty-five years ago, with a variety of government programmes, such as the "Quick-start" programme of 17 September 1970 and the "Environment programme" (1971), and with a comprehensive body of laws, the foundation for a modern environmental policy was laid down. This was achieved within a relatively short period in a show of legal and institutional strength by the left-liberal (SPD/FDP) coalition (1969-1982). The political administration was also very much going it alone in this, as there was no massive popular pressure in this direction at the time.

The stimulus here had been developments in environmental politics abroad - particularly in the USA - which were taken up by a coalition government almost overjoyed at the prospect of bringing in new reforms. In close cooperation with the large business organisations and scientific experts an environmental policy concept and body of regulations were produced which were - for their time - very demanding.

The dominance of legal experts among the state actors, and the then especially pronounced ideology, which viewed the state as a control centre for society, responsible and competent even in drawing up and supervising detailed matters in complex political areas, had a profound influence on the characters of the programmes and laws. The result was thus a hierarchical regulative approach to environmental policy, whose regulatory instruments were mainly of the "command and control" variety, with their roots in an outdated legal dogmatism (especially police law).

But this fails to explain completely the widespread absence of economic and result-orientated instruments which can be used in the context of regulative policy, too. This was evidently the price to be paid for including the economic-technical expertise of the economic sector and for reaching a consensus quickly during the programme's formulation. The *great environmental technocratic coalition for reform* which was active during the birth of modern environmental policy agreed on an environmental policy plan whose core elements (bureaucratic and regulative, medial and selective, curative) have remained effective to the present day, and stand in the way of flexible, innovative responses to new problem structures.

Nonetheless the environmental policy programme developed by the social-liberal coalition was, at the time, and also compared to the environmental policies of most other industrialised countries, progressive and highly promising, with its legally and technologically ambitious targets and its fundamental principles, which can even today be considered modern (precautionary, polluter pays, cooperation). However, the economic turbulence in the wake of the 1973 oil crisis quickly showed up the weaknesses of a plan which made the realisation of environmental protection

targets essentially dependent upon complex state and regulation measures, but gave little legal or institutional opportunity for social actors representing environmental protection interests to exert their influence. And so, as early as in the mid-1970s, with a number of agreements between trades union and business leaders and the high-ranking members of the political and administrative system, came stagnation in the development of environmental policy and considerable implementation deficits.

The task of making political issues out of what were now widely-held environmental fears and demands in society was taken up more and more by the so-called new social movements, from which green alternative parties finally grew, with growing electoral success. The constitution of a "green" national political party, as well as increasingly successful protests and demonstrations against environmentally harmful activities by business and on the level of the infrastructure forced the established parties and government to give environmental protection more weight. The speed and extent of these course corrections can only be explained by the massive visible and tangible pollution effects (for instance smog, dying forests), and by critical and extensive reporting on environmental problems in the media.

The conservative-liberal (CDU/CSU/FDP) government coalition which followed, at the end of 1982, failed to justify the early fears of many that its proximity to economic interest groups would lead it to conduct a weak environmental policy. Strengthened and driven by the social change which had given environmental protection a high priority within society, and reacting to the challenges in the political arena represented by the environmental movement, green parties, an ever greener social democratic party (which was now marching under the banner of "environmental modernisation") and also caused by the Chernobyl catastrophe, the government put pioneering new legislation through parliament in a relatively short time and achieved massive falls in pollution in specific problem areas, and in doing so, stimulated environmental politics in the EU and farther afield.

The measures taken and their results assured Germany of a place high up among the leading nations in progressive environmental policy. Accordingly, interest from abroad in Germany's environmental policy instruments has risen sharply in recent years, some instruments are thought to be showing the way forward and serve as models for other measures. And German environmental policy received high marks in an OECD status report in 1993.

In contrast, a representative survey carried out by the ipos institute in 1993 showed that the majority of those questioned judged the environmental situation in Germany to be bad or very bad. Satisfaction with the performance of the Federal Ministry for the Environment is also low. Ticking bombs are found in virtually all areas of the environment, and in almost every state or private sector activity, critical academics complain that environmental issues, in particular those relating to global challenges and sustainability, are inadequately taken into account.

Looking for major differences between the strategic approaches and environmental policy instruments of the conservative-liberal government and its social-liberal predecessor leads one to conclude broadly that things remained, for a long time at any rate, very much the same. The conceptual weaknesses of the present government do stand out somewhat, particularly since the national and international framework conditions altered decisively in the course of the 1980s.

For example, the only appropriate reaction to the internationalisation of environmental politics in the face of global environmental challenges is, in the opinion of an overwhelming majority of experts, fundamental conceptual and institutional change. And the opportunity for a radical

shake-up of the ossified elements in the environmental regulatory system, which the process of German reunification brought with it, was missed. Now the former East Germany must take the trouble to adapt to a number of procedures and instruments which have long been seen as inefficient and ineffectual in the former West Germany.

However, tendencies towards a transition from overwhelmingly reactive, curative measures and bureaucratic regulatory instruments to flexible, root-cause oriented approaches of conserving resources and the environment has been evident for a number of years. The redrafting of environmental liability law, passed by the government in September 1990 after years of debate, is pointing in this direction. The introduction of object-based (no-fault) risk liability, the easing of the rules of evidence in proving cause and the extension of liability to cover even proper standard operation of a plant are more than just a tacked-on improvement to environmental law within the conventional framework. The creation of the Dual System (Duales System Deutschland, DSD) increases the flexibility and efficiency of waste management. While the introduction of environmental protection as a national goal into the constitution in 1994 is a more than symbolic recognition of the importance of a sound environment to the development of society.

The plan presented in 1990 for the reduction of CO₂ emissions contains extremely progressive targets, compared internationally, which could usher in an environmental reorientation, above all as affects energy and transport policy. The 1991 Packagings Ordinance and the Waste Avoidance, Recycling and Disposal Act, which came into force in 1996, open up new roads towards waste avoidance, recycling and environmentally sound manufacture.

These are all certainly promising beginnings, however the jury is still largely out on the results of their implementation. What can be said is that a considerable fall in waste volumes has already become evident, whereby fewer waste incineration plants will need to be built than recently planned by government and industry, avoiding the conflict that such projects bring with them. Further opportunities - initiated by directives of the EU - to change the existing patterns in the environmental policy system to the benefit of environmental needs, as for example the law on environmental impact assessments and regulations on public access to environmental data might have made possible, have been scarcely exploited.

Regulations to promote public participation or improve the legal status of groups representing environmental interests, for example through the introduction of a right of action for associations ("class action"), could find no majority support in the present government. It has not been possible up to now to embed environmental conservation mechanisms structurally into particularly problematic areas, such as agriculture, energy, construction and transport.

All in all, I concluded in the 1995 study, a policy plan which systematically favours reactive and curative action, as well as the use of disposal technologies which displace the problems, and which generates unproductive conflicts in society, business and the administration, is still dominant after 25 years. Seen thus, environmental policy in the 1980s and 1990s can be described broadly as a more effective variant of environmental policy in the 1970s: the conservative-liberal government reacted to the rising pressure for political action on the environment above all by extending the range of conventional (regulatory) law instruments. In the course of its term of office it has even increased the degree of legislative density and detail in environmental policy instruments, in what a committee on the environment described in 1994 as "almost hectic legislative activity over recent years".

This contradicts not only the recommendations of experts, but also the results of more recent findings in environmental and other policy research. In all the various political theories there is currently agreement among virtually all of their representatives that the need for government leadership on the environment has risen dramatically, but that the forms of control which have dominated up to now have shown themselves more and more to be inadequate, and therefore that non-hierarchical, framework-building means of control (for instance through information, decentralisation, and procedural initiatives which, for example, set up dialogue or discourse-based procedures) as well as economic instruments should be used more intensively.

The job of fine-tuning and detailed implementation should, on the other hand, be left to the appropriate subsystems. On the level of decentralised implementation there have for some time been experiments in new procedures for decision-making and conflict management, and there has been an unmistakable increase in the numbers of dispute resolution procedures (such as mediation) based on negotiated settlements, as well as in manifold forms of cooperation between various groups of actors. Negotiation-based approaches have led to an increasing number of voluntary agreements between industry and the public authorities, e.g. that with respect to taking back outdated automobiles. However, many of these voluntary agreements by industries (*Selbstverpflichtung*) do not work very effectively.

The government has recently instituted a systematic examination of the instrumental and procedural elements of the current environmental policy approach, and a test of the utility of alternative instruments and procedures. Its conclusions to date are nonetheless far from promising: on the one hand, sharp criticism of over-complicated environmental protection measures from the business sector appears to have opened up the way to new changes, perhaps in planning permission law, including a reduction in public participation rights; on the other hand, recommended alternatives are the subject of rather muted discussion, and proposed changes to the existing range of instruments are overwhelmingly cosmetic. Approaches involving economic instruments based on the polluter pays principle, and on the use of targeted information campaigns to sway opinion are being used increasingly, but still play a less important role than in other progressive countries. For example, the proposed introduction of an environmental energy tax or a CO₂ charge caused heated debate, but was met with strong resistance from industry and some trades unions, although it was favoured by a majority of experts, the large environmental organisations, some government authorities, and the "Green" and Social Democratic parties.

All in all, current government environmental policy is characterised by an inherent contradiction. It resorts simultaneously to obsolete and to modern, innovative environmental policy plans, it alternates between stimulating and dampening down the now considerable potential for environmental modernisation in business and society, and it does not make adequate use of the large environmental policy capacities (at least compared internationally) which have been built up in recent years by all the central actors ("environmental proponents").

In my 1995 study, this is explained by the peculiarities of the political system, which make it difficult to bring about swift, radical change in environmental policy, while favourable conditions for a modernisation of environmental policy already exist within society and its institutions, as well as in the political and administrative system and in important economic sectors: a broad distribution of environmental expertise, many varied forms of cooperation between environmental policy innovators from all areas of society, a great amount of technical and informational

resources, well-organised networks of environmental interests and, not least, a relatively broad and stable consensus as to the necessity of an environmental modernisation of industrial society.

The old neocorporatist mode of cooperation of the post-war period, between state, business associations and unions (the "iron triangle"), has also gradually developed into a modern network, covering the environment also (the "green triangle"), in which organisations representing specifically environmental concerns are now also able to participate in political decisions and their implementation, for a period more at communal and state level, but now increasingly also at federal level. Considering the massive environmental conflicts and their associated fundamental ideological arguments which until not long ago still characterised the political landscape in Germany, this development is an indication of the political system's great capacity for integration. In the 1970s, for example, no one would have predicted that central figures of the environmental and anti-nuclear movements (such as Joschka Fischer, Monika Griefahn, Jo Leinen) would ever head a state ministry, or that representatives of the "Green" party would occupy high-ranking posts in countless state and communal governments.

The slow pace of change in environmental politics fits with the general hypothesis that the institutional conditions in German politics make a fundamental change of strategy a long drawn-out process. Major changes require as a rule a very broad political and social consensus, which is typically gained through a complicated and time-consuming voting and decision-making process. The roots of this are in the neocorporatist pattern for solving problems and in the associated institutional fabric, for example in the specific form of German federalism ("political connectivity" - *Politikverflechtung*, Fritz W. Scharpf), in the requirement for the rule of law and the constitutional opportunities to scrutinise fundamental political decisions which this entails, as well as in the proportional voting system, which seldom leads to clear-cut political majorities.

Thus the political scientist Manfred G. Schmidt describes the broad characteristics of action by the German state as a "politics of the middle way"; it is characterised by two starkly contrasting elements: on the one hand, it is almost incapable of rapid changes of course, while on the other hand, it has a notable capacity for long-term, gradual, "silent change", and on this basis possesses a considerable ability to take into account new challenges, issues and solutions.

Against this background, it seems plausible to regard the newly introduced environmental policy instruments of recent years, characterised here as having the potential of bringing about structural change, and the integration of organised sectors of the environmental movement as the expression of just such a "silent change" in environmental politics. For this reason it is also somewhat unlikely that the current criticism of environmental policy from business interest groups will lead to a drastic dismantling of the achievements to date. Nevertheless, it already led to a slowing-down of the process of environmental modernisation.

This assessment is supported by, among other things, the following equivocal developments:

(1) The significance of environmental politics to the general public has, according to new surveys (cf. Umwelt/BMU, Nr. 9/1996: 275ff.) fallen down the list of important issues. On a list of seven issues in 1996, those questioned in the former West Germany placed it third, behind "unemployment" and "criminality"; in the former East Germany it only reached fourth place, coming below "maintaining the welfare state" as well. General environmental awareness remained nonetheless at a high level, and over 60% of those questioned across the whole of Germany were of the opinion that society is heading for an environmental catastrophe, if things

continue as they are. However, the economic crisis is clearly having an effect on people's readiness to continue finding ever higher sums of money for environmental protection; this willingness has fallen (sometimes dramatically), in comparison to the results of the surveys in 1991 and 1994. As a consequence of the economic crisis and the strong increase in social problems - a challenge to the German welfare state - the interpolicy conflicts over distribution are growing continually. To a rapidly increasing extent, therefore, environmental policy projects are finding themselves faced with a need to justify themselves - they must be "socially acceptable", "economically benign" and on top of that financially efficient.

(2) There is now in Germany a broad base of sometimes highly organised proponents of progressive environmental policy, and this base covers all areas of society. For example, there are the well-organised environmental interest groups: environmentalist associations and nature conservation societies currently have a combined membership of over 4 million. They have been able to create a broad, relatively close-knit communication network at local, national and international level. The Green Party (*Die Grünen*, since unification *Bündnis 90/Die Grünen*) is now firmly established within the party political system. Recent state elections are indicating that they still have a potential for growth; in some elections they have enjoyed an increase in their share of the vote larger than that of any established party. In these parties also, there are powerful groups supporting a progressive environmental policy. This is particularly the case within the Social Democratic Party (SPD). Moreover, the main winner as regards environmental protection, the eco-industry, still has a keen interest in stringent environmental policy creating new markets and expanding those already established. With government and industrial expenditure on the environment at DM 45 billion in 1992, Germany spends one of the highest proportions - among OECD members - of its GNP on the environment. The growth rate of the German eco-industry is above average and it belongs to the world's market leaders. Recently, there has also been a sharp rise in the growth of a new "environmental market", which has established itself alongside the traditional market for end-of-pipe technology. It too is expected to grow in the coming years, partly as a result of the introduction of new policy instruments, and partly because of the need for new approaches in solving environmental problems. This growing sector could be called an "environmentally proactive business sector", since most of the organisations and groups of which it is made up have strong links to the environmentalist movement and equally strong persuasions in respect of ecology. This "environmentally proactive business sector" is not simply selling environmental products and services, but doing so with an environmentally committed approach. The "greening of (normal) enterprises" is contributing to the growth of this sector and at the same time strengthens the overall ability to resist opponents of progressive environmental policy. Since about 1988, "green" businesses and environmentally committed business associations have become increasingly important. To a large degree they have become the engine of ecological modernisation, for example through the introduction of "integrated" cleaner technologies by generating environmentally sound demand. The establishment of the environmental problem as a challenge to all levels of the political administrative system has led to a radical process of expansion and differentiation at all levels of the state, through which an expanding, independent, highly specialised "eco-bureaucracy" has arisen, which is also increasingly "self-confident" - i.e. developing its own *esprit de corps*. It has opened the doors to a new kind of employee: an expert with a specialised environmental education gained both before and during employment, younger and often highly motivated, and brought up in a social atmosphere of increasing "greenness". Environmentally motivated involvement in citizens' action groups or other organisations before (and now increasingly during) employment is no longer a rarity.

(3) In the course of environmental policy development over the last decade an essential change has taken place in the constellation of actors and in the dominant environmental policy paradigm. This is above all the result of a greatly increased need for cooperation in the field of environmental policy, and a correspondingly greater ability of central groups of actors to cooperate with one another. The reasons for the increased need for cooperation are a matter partly of a change in the nature of environmental problems, and partly of the increased influence of well-organised environmental proponents and the emergence of a new environmental policy approach, "environmental modernisation" or "sustainable development". For the dominant technological, curative approach to environmental problem-solving is reaching its economic limits, since the continuing necessity of increasing the level of clean-up is in most cases associated with disproportionately rising costs and often, in addition, with the long-term effects of problem displacement. Further limits are placed on this approach by the new tasks in environmental politics, including the management of "global environmental challenges", which can no longer be kept under control with purely technological solutions or through hierarchical authoritative state regulation. In many environmental policy fields, public authorities and industry are having to rely to an increasing extent on information and cooperation from many individuals, social groups and environmental organisations. None of this can be achieved through "giving orders" alone. Parallel to the rising *need* for cooperation, the *ability* of central groups of actors to cooperate has also grown in recent years. This applies to business, public authorities and political parties as much as to environmental organisations. Furthermore, in all groups there can be made out an increasing preference for flexible and cooperative problem management instruments and breaking down the powerful barriers to communication and mutual aversion which once existed. This could be summarised by noting that similar human resource and institutional changes have taken place among all the main actors in the environmental policy arena, as well as changes in their environmental policy ideals, which have made new forms of cooperation between them both more rational and more easily realisable. To nearly all actors, cautious cooperation now appears more attractive than traditional conflict management, with its final port of call usually the courtroom. The most complete agreement between the various main actors has clearly been reached on the environmental policy paradigm: they now all support the idea of sustainable development. There are certainly some considerable differences in interpretation as to what sustainable development really is and what specific conclusions are to be drawn, but in contrast to earlier times there is no more difference in principle: the development of economic and social structures which spare the environment and natural resources is generally accepted as a central task for the future. Resulting from such an agreement in principle on the paradigm are many varied possibilities for cooperation between otherwise conflicting actors, since the anti-communicative caricatures of the other side and its ideology can now be construed and credibly expressed only with the greatest of difficulty. There have already been numerous cases of bi- and trilateral cooperation between the main actors as a result of the above-mentioned developments.³

Whether a progressive environmental policy will continue to be extended in Germany in the coming years, and this means above all an "environmentalisation" of problematic policy areas, will, in my opinion, depend heavily on the continuing stability of the sizable popular consensus on the paradigm of sustainable development which has been achieved to date, and on whether

³ cf. Helmut Weidner (1996), Umweltkooperation und alternative Konfliktregelungsverfahren in Deutschland. Zur Entstehung eines neuen Politiknetzwerkes (Cooperation on the Environment and Alternative Conflict Management Procedures in Germany. The Development of a New Policy Network), WZB-Schriftenreihe FS II 96-302, Berlin: Wissenschaftszentrum Berlin für Sozialforschung. Contains numerous references to further literature on the subject.

the environmental proponents - a powerful collection, when compared internationally - possess the will and the skill to utilise the available capacity for environmental policy and form a strategic coalition against the opponents to a progressive environmental policy, who have been gaining strength in recent years. Whether this will be possible under the present unfavourable conditions - an increase in social and economic policy restrictions and simultaneously in the order of the task to be faced (globally sustainable environmental policy) - which are also likely to remain in place for some time to come will also depend on the ability of environmental policy research to develop realistic analyses of the problems and strategies for managing them and to introduce them into the process of shaping political opinion. Thus, there is also a strong need for environmental policy researchers to adapt their concepts and approaches - developed in former phases of environmental policy - to the new challenges and conditions and, perhaps, to perceive global changes also as global chances.

3. Broad Findings from the Commentaries of Environmental Experts

3.1. German Environmental Policy

On the basis of the expert commentaries on German environmental policy, my ranking of it as "leading the international field" must now be qualified considerably, and for a number of reasons.

(1) Firstly there is the chronological aspect. Germany does not belong to the early pioneer countries in environmental politics. Other countries (e.g. USA, Japan and Sweden) had started earlier with the construction of a modern environmental policy in terms of both programmes and institutions. The breakthrough out of a largely legalistically oriented environmental policy into one oriented towards outcomes, one which also included proactively the international dimension, took place only during the course of the 1980s. And only from then on can Germany's performance be said to have brought it in amongst the frontrunners in progressive environmental policy, whereby the action taken was also stimulated by action taken in other countries. With the onset, from about 1992 onwards, of the most serious economic depression in German post-war history, the dynamism of environmental politics encountered considerable drag. Since then, while there may not have been a dramatic backlash, there has certainly been scarcely any development of ambitious new targets, and it is clear that enthusiasm for modernising and strengthening EU environmental policy has been dampened, which has led particularly to disillusionment in other environmentally progressive member states (cf. especially the commentaries by Andersen/Denmark, Bressers/Netherlands).

(2) Secondly, German environmental policy must be marked down in terms of quality. From a comprehensive ecological perspective, considerable gaps and deficits can be made out (cf. Bressers/Netherlands, Knoepfel/Switzerland, Fischer-Kowalski/Austria, Larrue/France, Luhmann & von Weizsäcker/Germany, Rehbinder/Germany). Specifically they concern nature, soil and ground water conservation, and noise abatement; more generally, they concern those policy areas which, according to current academic thought, form the actual heart of environmental problems, and without whose "greening" the goal of sustainable development can never be reached: energy, transport, construction and agricultural policy. In face of the rather slack conceptual and actual performance of state environmental policy in these areas to date, Germany's place among the world environmental policy leaders can be seen to result largely from effective measures implemented within a technocratic, reactive political approach, which

is however increasingly coming to the limits of its effectiveness, as might have been foreseen many years ago by observing Japanese environmental politics (cf. Miyamoto/Japan).

(3) A survey of environmental policy instruments and procedures also brings to light some serious deficits and innovational weakness in Germany's environmental policy. Despite certain regulations which are seen internationally as exemplary and elements of which have been imitated elsewhere, the entire set of regulatory instruments as a whole, as policy style also, cannot be described as modern or up to date with the scientific discussion. This applies above all to those regulations which belong to the basic elements of a progressive environmental policy - i.e. those whereby structural asymmetries in the parallelogram of power are altered in favour of environmental proponents - and those which substantially increase the possibilities for the public and environmental organisations to participate (e.g. class actions), which increase the transparency of environmental problems and of action taken by the authorities or business (e.g. requirements to publish environmentally important data, such as toxic emission inventories), as well as instruments which systematically promote cooperation and the economic self-interest of environmental actors (e.g. covenants, economic incentives), instruments for nationwide long-term environmental planning (e.g. comprehensive environmental planning, such as is found in the Netherlands, Switzerland, Austria and Japan). These kinds of deficits are pointed out by numerous experts (alongside those mentioned above, Rose-Ackerman/USA and Weale/Great Britain). Many of the (at any rate short to medium-term) positive outcomes of German environmental policy can moreover be explained not by environmental zeal on the part of authorities and businesses, but rather by the economic interests of the eco-industrial complex which is particularly well-developed in Germany (cf. Dente & Marson/Italy). The eco-industrial complex was probably able to develop so well because environmental protection measures are, directly or indirectly, relatively heavily subsidised, from the public purse in Germany, in contrast to the officially propounded polluter pays principle (cf. Larrue/France).

(4) When considering the pressure of environmental problems it should be taken into account that Germany's situation is, in comparison to that of many other countries, structurally less amenable in respect of a number of environmentally important factors (e.g. in respect of its high industrial concentration with a large share of particularly problematic sectors: chemicals, iron and steel, power generation, of its high population and transport density and of rising transit transportation), whereby Germany is facing a comparatively greater challenge, has relatively more to do, than other countries whose situation is structurally more favourable (cf. Fischer-Kowalski/Austria, Knoepfel/Switzerland). Its from time to time heavy international involvement can be explained by Germany's in some respects unique geographical situation: it shares numerous rivers with other countries and, due to its position, is particularly open to environmental pollution which was produced in other countries. Some commentators are also of the opinion that the extraordinarily good economic situation which obtained in Germany for so long has made an environmental policy which is in itself unreasonably expensive both acceptable and realisable, while a less favourable economic situation might bring with it greater conflicts over distribution and a relaxing of demanding environmental expectations from the general public - a development which in recent years has in fact come to pass, with the advent of the serious economic recession (cf. in particular the most recent survey of environmental awareness: Bundesumweltministerium, Ed., *Umweltbewußtsein in Deutschland. Ergebnisse einer repräsentativen Bevölkerungsumfrage 1996*, Bonn: BMU 1996).

Similar, and in some areas still greater deficits and problem constellations can be found in other countries too, sometimes in those which are now equally numbered among the frontrunners. In

this respect, some experts (cf. especially Reh binder/Germany, Luhmann & von Weizsäcker/Germany, Fischer-Kowalski/Austria) believe that a positive assessment of German environmental policy for which the situation offers no justification could also come about because "the one-eyed man in the land of the blind" does tend to stand out from the crowd.

Academics working comparatively, like myself, do certainly have an in-built tendency towards a certain relativism when comparing policies, whereby achievement is not so much measured against (seldom generally agreed upon) normative criteria, but judged according to the state of development of comparable countries. Nevertheless, the expert commentaries show that even my ranking of German environmental policy, made from such a relativistic perspective, must be qualified. This is still more the case when faced with recent unfavourable developments in Germany, as well as with the recent development of better environmental policy in some other countries, through which Germany's environmental policy ranking within the frontrunner group has unmistakably deteriorated. In any case, the fact cannot be ignored that environmental policy dynamism in other countries has in recent years been greater than that in Germany, and that for this reason new pioneer countries are emerging, whose environmental policy measures are increasingly providing stimulus to the international debate, such as the Netherlands, Denmark, Sweden and Switzerland. This is most especially the case as regards the factors important for a modern second-generation environmental policy, interpolicy cooperation and integration, long-term planning and implementation of economic incentive systems in the areas of energy and resources.

3.2. Environmental Policy in General

Of the manifold interesting issues focused on in the expert commentaries, the following aspects appear to me to be of special relevance to comparative socio-environmental research, in part because of their general applicability.

(1) Influence of the economic situation, the strategy of "get dirty, get rich, get clean"

The requirements for a successful environmental policy have been discussed too exclusively from the perspective of economically advanced countries up to now, and this applies also to my study of German environmental policy. In developing and borderline countries and in the transformation countries of Eastern Europe, however, the size and development trends of economic capacity play a far more important restrictive role in the process of environmental policy capacity-building. Widespread social poverty and the goal within society of creating material wealth hinder not only the construction of a rudimentary base of state institutional capacity, but equally the development of a broad environmental awareness in society which promotes the formation of groups capable of making their demands heard and thereby allowing pressure for political action to be generated (cf. Seglins/Latvia, Mao/China). As a result of economic recession relatively wealthy countries - and Germany is a fine example of this - can also experience a reduction in the impetus of environmental politics. Perhaps these perceptible interrelationships sensitise the environmental policy researcher to the great difference between theoretical findings on "cases of growth" and the real significance of material well-being (and the corresponding economic growth) in processes of environmental motivation and decision-making, as much at the level of society as at that of politics.

The ideal of sustainable development, which can now be fairly described as universalist, offers for the first time a conceptual escape route out of this dilemma which finds a high level of acceptance, since social and economic elements are more heavily weighted than ecocentric

approaches. At the same time, this is still very much a rhetorical bridge over troubled waters, and how far the new paradigm of sustainable development will prove practicable in terms of real policy drafts cannot, in my view, be judged on the basis of theory before the fact, since this is essentially a centuries-long political project involving every country of the world. There may already be hundreds of consensuses over important goals and the orientation of development, but numerous conflicts will certainly arise over their operationalisation and substantial implementation, which will necessarily lead to a modification of the basic plans, if they are to be a matter of broader consensus.

How difficult this can be is shown by, among other things, all countries' experience to date with the instrument of environmental impact assessments. This is an instrument that already contains "in miniature" many of the essential elements of the ideal of sustainable development; but negative experiences with environmental policy or juridical blanket clauses such as "economic acceptability" (in Germany), "best practicable means" or "best practicable environmental option" (Great Britain) or the dictate, embodied in Japanese law during the early phase of its environmental policy, that environmental protection should take place in harmony with economic development. These formulations, which actually make possible a compromise between various interest groups, are well-known to have led in most concrete decision-making cases to complicated legal, technological and political disputes - and have had rather a disadvantageous impact on environmental protection. And finally, some countries' experience that a development strategy which gives too great a priority to economic aspects produces, at least in the long run, irreparable environmental damage and serious political conflicts, slows down the general process of socioeconomic modernisation and stiffens obsolete structures so that processes of changing direction necessitated by pressure for political action on the environment can inflict great social and political costs (as regards specific experiences of the above-mentioned aspects cf. especially Miyamoto/Japan, Dente & Marson/Italy, Weale/Great Britain). The strategy of giving the economy priority over environmental necessity at first and then instituting an environmental "care plan", was in any case an extremely hard to realise plan even at the outset, where mistakes, once made, appear to exert a negative influence on the path of later developments, despite great and costly efforts in environmental protection at a later date, as exemplified in particular by Japan. The strategy of "get dirty, get rich, get clean" has become even more problematic today than it was in the 1960s and 1970s, as countless countries with a relatively solid capacity base for environmental policy are now economic competitors, and as the accelerated globalisation of economic ties and the intensification of international competition means that the ability to modernise in respect of environmental policy now plays a more significant role than in past decades. The risk of being hit by economic sanctions justified on environmental grounds or conversely, the chance of benefiting from economic advantages through environmental progressiveness (cf. Andersen/Denmark), has become considerably greater in relation to the past. In this respect it is a characteristic of the general ability of political systems to learn and modernise if this route is taken despite the manifold conflicts over the development and implementation of such a strategy for sustainable development which can be expected (cf. Papadakis/Australia).

(2) *Pressure for political action on the environment*

The existence of pressure to take political action on the environment is an essential condition for the initiation of effective state and economic environmental protection measures. As a rule, this presupposes a certain degree of pressure from environmental problems - for example a level of air pollution which leads to health problems and visible environmental or economic damage.

Nonetheless, the degree of pollution which must be reached in order to trigger a social or political reaction varies considerably from country to country. Furthermore, elaborate environmental action is taken in areas where, according to scientific and medical (i.e. "objective") criteria, the risk potential is still unclear and a matter of scientific debate, or where the discernible consequences for humans and the environment are relatively slight in comparison to those of other pollutants against which scarcely any action is taken or demanded. Many factors determine whether something becomes a political issue, brought before the public and openly debated, and which can therefore put the public authorities under pressure to make decisions. In the expert commentaries, a broad spectrum of significant factors is mentioned, among them in particular the level of economic well-being (cf. Mao/China, Seglins/Latvia), the commitment of the mass media and publicly influential groups of actors (cf. Miyamoto/Japan), the efforts of political parties to improve their environmental image (cf. Papadakis/Australia), the responsiveness of fundamental political institutions (cf. Andersen/Denmark, Bressers/Netherlands, Knoepfel/Switzerland), pressure on governments from other countries or international and supranational bodies as well as critical comments from abroad (cf. Aguilar/Spain, Fischer-Kowalski/Austria), offence to specific widely-held environmental values which are of great importance to the public (cf. Dente & Marson/Italy), the possibility of exerting indirect pressure on governments through the founding of "green parties", which is helped by the use of a proportional voting system (cf. Larrue/France) as well as information and legal resources for environmental proponents (cf. Rose-Ackerman/USA).

In the expert commentaries, the specific factors may be given different weight as to their importance in adding impetus to environmental policy; however, there is broad agreement inasmuch that permanent pressure on political decision-making bodies at all levels from a well-organised environmental movement moves the process of environmental modernisation along. Pressure for political action can be generated in many forms, among others through the systematic exploitation of every available possibility for participation in the formulation and decision-making process (including the use of possibilities for legal intervention), through extra-parliamentary protests and demonstrations, mobilising "pressure from without" (support from foreign organisations and institutions), forming coalitions with actors inside the establishment, the setting up of organisations in competition with the established ones (e.g. environmentally committed research institutes, information services) as well as through the creation of alternative realities and the proof of their practicability.

Which forms and means are the most successful in each case depends upon the general context in which environmental policy finds itself in the specific country. It does, however, seem clear that - in the first place - not a single "ideal route", but a broad spectrum of intelligently interconnected means and strategies which are used according to the situation is the most hopeful path to take - which does predicate a relatively high degree of organisational, cognitive and strategic ability - and, secondly, that there is a broad type of strategy dealing with conflict and consensus. This points to the fact that activity by the environmental groups must be appropriate to the situation and oriented around conflict or compromise (or a combination of the two), if it is to create an environmental issue, and then bring it into the standard political process and keep it there. Continual calls to arms without a formal institutional securing within the traditional political process of that which has been achieved (which generally presupposes an ability to compromise), but also behaviour which is cooperative and oriented around compromise from the start, without the creation of a sufficiently powerful negotiating position through prior activism, often lead only to short-term success. The environmental pioneers themselves show that environmental organisations' ability to compromise and reach consensus is a

central factor in perpetuating progressive political action on the environment (cf. Weale, for whom "social learning is best advanced when there are also adequate cooperative processes existing").

Yet if it is therefore possible to assume in general that pressure for political action on the environment is a *sine qua non* for the environmental modernisation of existing political and economic institutions, there are at first sight still a number of irritating exceptions to the rule. Germany and Japan show this well. If in Japan it was quite clearly massive pressure for political action on the environment from within society - generated primarily by environmental victim groups, environmental organisations, committed "progressive" academics and trades unionists, lawyers, judges and journalists - which forced the established power structure to a change of direction as regards the environment, the issue was made a matter of public concern in Germany by the government itself at the start of the 1970s, and thereupon anchored legally and institutionally in political and administrative decision-making system, without the presence of "irresistible" political pressure from groups of social actors. Nonetheless, closer inspection of the differences between the two countries shows that, in contrast to Japan, the first ideologically significant change of federal government in post-war Germany had taken place shortly before the environmental issue was placed in the political arena, leading to a social-liberal coalition. The change of government took place in an overall sociopolitical climate which - heavily influenced by so-called "extraparliamentary opposition" and the "anti-authoritarian movement" of the 1960s - was comparatively keen on reform, public participation and central planning.

In this respect the environmental issue developed in each country under essentially different social framework conditions. In Germany, even before the general politicisation of the environmental issue, a democratic reform (with above all far-reaching political consequences for society and education) in the political and administrative system had already taken place; in Japan, there had also been a broad politicisation of society during the 1960s, triggered by conflicts over the revision of the security pact between Japan and the USA, but the popular movement had not succeeded in forcing the power structure (the conservative party, the ministerial bureaucracy and business associations) to make fundamental democratic reforms. On the back of politicising the environmental issue, the "progressive movement" tried to bring about these reforms second time around, as it were.

These differences between Japan and Germany, in the general political framework conditions, in the general politically strategic function of the environmental issue for opposition groups, and also in respect of the level of environmental pollution explain to a great extent why conflict over the environment in Japan was considerably more violent than that in Germany. These differences may also explain why the environmental policy introduced at first in Japan was far more effective than that in Germany. It may be that the Japanese power structure wanted to protect the established leadership structure from fundamental change, i.e. the environmental policy dispute expanding into a general social conflict over the basic rights of society, through far-reaching political action on the environment (and rapid success).

Moreover, the political scientist will also ask whether the path of development taken by environmental policy in Germany confirms the thesis, that learning and organisational processes are possible within industrialised capitalist societies without pressure for environmental action, and whether these processes lead to political action which can be implemented against the will of powerful economic interest groups (and their supporters in the political and administrative system). At first sight, the developments in federal Germany do seem to confirm this thesis.

Before answering this question, I propose first to define the subject area "environmental policy" a little more closely. In this I shall refer back to a taxonomy of various phases in the development of environmental politics which was developed for the analysis of the path taken by Japanese environmental policy: environmental ignorance, symbolic environmental politics, technocratic environmental politics, and exogenously stimulated globalisation of environmental politics.⁴

On the basis of such an empirically analytical taxonomy of various forms of environmental policy, the term "pressure for political action on the environment" gains new meaning. It then becomes clear that the political and administrative system in Germany, while undergoing an endogenous learning process (i.e. without pressure for political action on the environment), was only capable of creating a *symbolic* environmental policy; the establishment of an *effective* environmental policy, which began during the phase of technocratic environmental politics, took place only under heavy pressure for political action on the environment, which came from the environmental movement and its political organisations. Thus if the point of comparison between Japan and Germany is taken to be a form of environmental policy which achieves noticeable environmental improvements across a wide area, then the conditions for the environmental policy change in both countries are to a great extent identical: for one a massive pressure from environmental problems as a result of nationwide environmental damage and health risks, for the other a strong opposition movement from within society, objecting to an environmentally irresponsible growth policy. Both together constitute pressure for political action on the environment.

In contrast to Japan, the pressure for political action on the environment has in the first place increased in the course of time and maintained a relatively high level; in the second place, the environmental movement in Germany has succeeded in establishing politically heavyweight organisations at local and national level, which were able to anchor themselves in the political and administrative system and close a variety of cooperative relationships with actors from the economic sector - especially the "green entrepreneurs". This presumably explains a good part of why environmental politics in Japan reached a point of stagnation at the end of the 1970s, while state environmental policy in Germany in the 1980s developed further in terms of policy programme and also in terms of a more far-reaching environmental policy paradigm in some areas, compared to proactive technological environmental protection (the environmental modernisation of society). In face of the dramatically deteriorating environmental policy framework conditions in Germany during the 1990s, however, the next few years will show how stable the existing network of environmental policy proponents is when tackling the new environmental policy challenges. From the findings of comparative environmental policy analysis it can in any case be concluded that, as a result of new framework conditions, the environmental proponents will have to develop a new strategy mix of conflict and cooperation oriented approaches.

(3) *Environmental information/transparency*

Environmental policy studies in general as well as the comparative study of capacity-building reveal the importance of "transparency" in environmental policy and politics. The systematic

⁴ cf. Shigeto Tsuru & Helmut Weidner (eds.), *Environmental Policy in Japan*. Berlin: edition sigma, 1989; Helmut Weidner, *Basiselemente einer erfolgreichen Umweltpolitik. Eine Analyse und Evaluation der Instrumente der japanischen Umweltpolitik* (Basic elements of a successful environmental policy. An analysis and evaluation of the Japanese environmental policy instruments). Berlin: edition sigma, 1996.

collection and disclosure of environmental data by the responsible administrative bodies and polluting firms is essential for a rational decision-making process and for the effective functioning of policy instruments. It provides all relevant actor groups with the necessary basis to initiate, promote or enforce "environmentally sound action" and even for replacing or complementing cumbersome bureaucratic supervision and executive procedures. A well-developed, public-oriented system for providing environmental information can thus be considered a "basic element" of a successful environmental policy, as it restructures the power game in favour of proponents of environmental policy, improves the conditions for effective and efficient environmental policy, thereby facilitating the acceleration of ex-post, curative measures as well as the conceptualisation and implementation of precautionary approaches. And it is an indispensable means of planning for sustainable development and for furthering intra- and interpolicy cooperation.

However, as creating transparency is modifying the power structure in favour of environmental proponents, this basic precondition of a rational environmental policy is not well established in many countries. Even in the pioneer countries there are large deficits with respect to comprehensive data collection and publication (e.g. Germany, Japan), especially the specific data needed for planning and implementing a policy aiming at sustainable development are widely lacking. Public access to specific data (e.g., emissions, input factors) from businesses, as well as to the files of public authorities in particular is, as a rule, still severely limited (the USA seems to offer the best example in this regard). But the responsible authorities also run up against internal and external restrictions, in organising their own scientific data bases, in demanding data from firms and in exchanging data between the different bodies and levels in the political and administrative system (cf. Dente & Marson/Italy, Aguilar/Spain, Miyamoto/Japan). In Italy, the lack of scientific resources in government institutions evidently contributes to its defensive and provocative dealings with public groups. Although the fundamental importance of transparency in environmental policy and politics has been well-attested since the beginning of modern environmental policy - and is clearly demonstrated by a series of empirical cases, e.g. in Germany, Japan and the USA - in most countries it took a long time to make the leap to a distinctive goal of the political decision-making bodies.

(4) *International Influence*

The influence of international developments and approaches used in other countries on initiating a systematic environmental policy, institution-building and policy change (including paradigm change) is obviously strong. The "birth" of Germany's modern environmental policy was heavily influenced by developments in the then pioneering countries (Japan, Sweden and, especially, the USA) and the debate in international organisations. German administrators, for example, carefully studied the institutional and legal structures in the United States before starting out on the establishment of its own institutions and programmes. In the course of the global development of environmental policy, it was in particular specific regulatory systems which were - sometimes in a heavily modified form and often after long delays - taken over from other countries (e.g. regulations on liability, environmental impact assessments, access to environmental information). With respect to economic instruments, there was (and still is) a heated debate between all groups of actors in Germany, and the German administration has commissioned innumerable studies of these instruments, but this has had only few substantive consequences in political and administrative practice. As regards modern instruments and modern institutional design, the Netherlands (cf. Bressers), Denmark (cf. Andersen) and, with respect to re-organization of the administration, Switzerland (cf. Knoepfel) have been con-

siderably more open to innovation. This applies also to the economic instruments against which influential groups in Germany argue that they can only be "economically acceptable" on the basis of their global or Europe-wide introduction.

Germany's environmental policy has nevertheless, alongside that of Europe as an entity, influenced environmental politics in other countries. This is the case for Switzerland (cf. Knoepfel) and Denmark (cf. Andersen), but also for Great Britain. In the latter case Weale points up for example the paradoxical situation that the precautionary principle of German environmental policy has had a strong influence on the environmental policy agenda in Great Britain (and in the EU), but made little of a permanent mark on concrete environmental politics in Germany itself. Andersen shows in addition that the "greening of Germany" has not only stimulated overall environmental policy in Denmark, but also led to environmentally favourable reactions from the economic system, which can partly be explained by the heavy dependency on exports of individual Danish companies and sectors. Seen from a wider political perspective, however, there has been disappointment for Denmark, in that it had hoped for far more opportunity for building environmental policy coalitions with Germany on the international stage, in particular in order to influence EU environmental policy. For some time, one may conclude from the various commentaries, the progressive influence of German environmental policy on developments in other countries and in an international context has been in rapid retreat. The packaging ordinance and the concept of a recycling-based economy have nonetheless had a certain positive impact recently.

Writing for Switzerland, Knoepfel shows how strong the influence of EU environmental policy is on a non-member state, and how it has increased greatly since influential economic and political circles have announced a desire to join the EU. For some years now, all important environmental policy and legal regulations in Switzerland have been modelled according to compatibility with EU environmental policy. EU influence also proves important to environmental policy in countries such as Italy (cf. Dente & Marson) and Spain (cf. Aguilar), where it represents the driving force in modernising existing regulatory systems. In Japan (cf. Miyamoto), modern environmental policy has also received important impetus from international criticism of environmental dumping practices and especially as a result of pressure from the USA; international criticism is also an important cause of the global reorientation of Japanese environmental policy since the end of the 1980s, but at the same time, the pressure to conform generated by the environmental programmes of international institutions (e.g. the 1992 Rio Conference) is another important factor. Furthermore, Japanese NGOs make use of foreign media and environmental organisations as well as international conferences - as for example the first UN environmental conference in 1972 in Stockholm - to exert pressure on government and business in their own country (and with some success). In countries such as China (cf. Mao) and Latvia (cf. Seglins), which have to struggle against severe economic problems, it becomes clear moreover, that the quality of protection offered by the environmental policies of these nations would lie far below its current level and would have far darker prospects than is presently the case, without environmental policy initiatives, but in particular without the economic, technical and financial support of international organisations. It becomes clear that international support should not restrict itself only to technical and financial measures of the traditional sort, but also direct itself towards a broad expansion of environmental policy capacity in all areas of society, thus for example including support for independent academic institutions and NGOs.

As a consequence of the demonstrably strong influence of progressive environmental policy in individual countries on both international organisations and other countries one may conclude that an important task for environmental policy researchers is to observe such progressive developments systematically, and offer the results for discussion not only within the scientific community, but also within the general environmental policy debate at large. At present, there seems to be too much talk (in a politically defensive way) on *global changes* and less on *global chances*. This would appear to assume great strategic importance for environmental policy development at precisely such times of crisis, and therefore be considerably more important than simply pointing up the universal deficits. Such a conclusion is also supported by the fact that a progressive environmental programme or regulation which is only in fact implemented to a limited extent (with tangible outcomes) in its country of origin may have the function of stimulating policy development in other countries (examples of this are the economic instruments in the USA, the precautionary principle in Germany, the compensation system in Japan, and possibly also the voluntary cooperative agreements - covenants - in the Netherlands, whose impact to date is thoroughly criticised by Bressers).

(5) *Intra- and Interpolicy Cooperation*

There is probably no other policy area in which the terms complexity, integration, cooperation, networking and interdependence are so commonly used and play such an important role in problem analysis than in the area of environmental policy. Even at the outset it was evident that environmental problems are no respecters of national boundaries and equally not of the norms and limits of individual policy areas. A systematic consideration of the environmental context is already a central factor in the success of conventional environmental policy strategies (e.g. end-of-pipe strategies), in order to avoid problem displacement and other undesirable (e.g. social or economic) side-effects. For ambitious environmental strategies which may be aiming for environmental modernisation or sustainable development it is moreover an unavoidable precondition for success that environmental policy be linked to those policy areas which stand in strong substantive relation to environmental policy, and which thereby influence to a considerable extent the environmental situation and thus also environmental policy and its outcomes, sometimes very much more so (in both a positive and a negative sense) than the environmental policy itself.

To name but a few from many examples, Japan's energy and industrial policy has probably had a greater impact on the reduction in emissions than the numerous environmental policy instruments, Japanese transport policy, on the other hand, is responsible for the fact that despite the most stringent automobile exhaust gas limits in the world, air pollution from mobile sources is on the rise again. The same applies to Chinese and Latvian economic policy as a whole. In Germany, the economic recession and industrial modernisation in the former East Germany are having a positive effect on emissions of CO₂. The complex of agriculture, transport, energy and construction policies is of particular importance. The European Union, which laid particular emphasis on the demand for an integrative environmental policy in the Maastricht Treaty ("Environmental protection requirements must be integrated into the definition of other Community policies"), the implementation of this goal is proving especially fraught. Environmental policy in the EU has been criticised from very early on for its lack of policy integration, and one hand (structural or economic policy, for example) often despoils more environmental quality than the other hand (environmental policy) has with great difficulty achieved.

Each of the aforementioned competing policy areas forms its own political arena with stratified interest networks which have a far longer tradition than environmental politics. The threat to, or even attempt to colonise, their own domains, as attempts to intervene or penetrate the barriers on the part of environmental policy are perceived, are therefore often met with strong resistance, which is often successful simply for the reason that the competing ministries are as a rule considerably more powerful bureaucracies, their clientele is better organised and has at its disposal long-established networks within the political and administrative system.

Integrative environmental policy requires above all intensive coordination and cooperation between the various relevant policy areas - a task which demands not only a high degree of strategic skill from the environmental policy institutions, but at the same time also a great deal of internal discipline from government institutions as a whole. However, coordination between conflicting objectives is among the most difficult of all governmental tasks. Policy integration is so difficult because the decision-making mode of "negative coordination" dominates in the public apparatus: every department, every ministry is first and foremost watchful that its own sphere of competence is not unfavourably affected. Thus projects have a greater chance of being implemented if they touch on as few "foreign" areas of responsibility as possible from the outset. This mechanism promotes selectiveness, not comprehensiveness; equally bound up here is the fact that powerful single interest groups have a better chance of being heard. The task becomes still more complicated in that the performance of political and administrative systems generally varies from policy area to policy area, sometimes to a very great extent. This would mean for example that a poorly performing policy area would have first to build up the political capacities to provide the necessary contacts for an integrative environmental project. Equally, there are great deficits in coordination and cooperation, as well as performance differences, within the individual environmental policy areas which, among other things, makes an assessment of the overall environmental achievement of a country such a complicated task. Each country has its strong and its weak sides in environmental policy: successes in air quality maintenance are balanced by poor results as regards waste management (e.g. Japan) or nature conservation policy (e.g. Germany). Moreover, within the individual segments of environmental policy there are also varying levels of performance. Large reductions in emissions from stationary sources, but rising emissions from mobile ones are typical for industrialised countries. The more detailed the analysis, the more ambivalent and heterogeneous the performance observed. These intra-policy variants are also characterised by "mini-arenas" within the whole environmental policy arena, in which competing networks can be found. (In this connection one might say that the selected technology is not so much responsible for problem displacement as deficiencies in the ability to integrate policy.) This all makes it clear not only how important problem-specific action (and a corresponding increase in capacity) is to inter- and intrapolicy integration, in order to achieve a long-term stable environmental policy which takes in the entire environmental context, but also, at the same time, how complex and politically fraught this task is.

The difficulty of policy integration measures (and also the associated risks for environmental policy) leads us to hypothesise that only countries with a relatively well-developed institutional basis in respect of the environment and with systemic characteristics which generally promote integration and networking, as well as relatively low variance between the performance of various policy areas, have achieved anything of note in this area. This is largely confirmed by the commentaries of the foreign experts in this volume. On the one hand it becomes evident that inter- and intrapolicy cooperation is still in its infancy in all countries, at least as dealt with by the experts here; on the other hand, a general shift towards dialogue and cooperation can be observed in many countries. The most far-advanced developments towards cooperative

environmental policy can be found in Switzerland, the Netherlands, Denmark and to some extent Australia - all countries with consensus and cooperation oriented political formulation and decision-making processes. In the case of Germany also attention is drawn to the fact that, considering the thoroughly fragmented structure of competences (a federal system), a remarkably high degree of cooperation takes place between the authorities on and between the levels of state (communes, states and central government, cf. Weale); cooperation between environmental policy institutions and the scientific community should also be extended, however - the positive effects of institutionalised cooperation to date (e.g. in the form of scientific advocates, federal commissions of enquiry) would be sufficient to justify such a step (cf. Luhmann and Weizsäcker). The example of Australia (cf. Papadakis) serves to illustrate the danger of competition arising between established environmental administrations and new institutions focused on integrative environmental policy and sustainable development.

(6) *Ambivalence of Instruments*

Environmental policy, particularly if it follows the search for sustainable development, is a highly complex and politicised exercise in selection, requiring a comprehensive and flexible range of instruments in order to be able to react appropriately to the different political, social, economic etc. framework conditions, and to changes in the course of time. These contextual conditions can influence the possible effectiveness of policy instruments both negatively and positively. In this respect, a precise assessment of the instruments' functions and effects can be made in many cases only to a very limited extent without considering the context effects in which they are embedded. This applies especially to the international exchange of instruments, faced with the large variance in context conditions compared cross-nationally, but also faced with the sometimes considerable variance in their rate of development over time within one country.

This aspect has been pointed up once again by Weaver & Rockman⁵ on the basis of the results of a broad-based cross-national study of the importance of institutions in various policy areas: "Indeed, the case studies suggest that the terms 'institutional advantages' and 'disadvantages' are a misleading way of thinking about institutional effects on governmental capabilities. Political institutions are best thought of as creating risks and opportunities for effective policy making" (p. 39). This inherent ambiguity also makes it difficult to give clear-cut recommendations for the transfer of instruments: "Institutional arrangements that creates opportunities for effective governance in one country may heighten risks of government failure in another because the latter government faces different facilitating and limiting conditions" (p. 39).

In addition, numerous expert commentaries here (cf. Knoepfel/Switzerland, Larrue/France, Fischer-Kowalski/Austria, Andersen/Denmark, Papadakis/Australia) show that, on the one hand, despite very different context conditions the political courses taken always show strong similarities, and on the other hand, that different policy measures, regulatory systems and effect can arise in spite of similar context conditions. This also may be understood as a warning against premature generalisation on the basis of single variables and their functions in individual countries.

In the face of this now generally agreed (and somewhat trivial) finding it is surprising that social scientists (and especially economists) still frequently, and very one-dimensionally, propound the one best-suited means to solving a problem: perhaps the establishment of a specific

⁵ R. Kent Weaver & Bert A. Rockman (eds.), 1993, *Do Institutions Matter? Government Capabilities in the United States and Abroad*. Washington, D.C.: The Brookings Institution.

institution, the introduction of a single instrument or the enactment of particular statutory legislation. This often takes place with the justification that the proposed means has proved itself in one particular country, or merely theoretical arguments are offered, which have more often than not been developed with the help of *ceteris-paribus* assumptions. "Eco-taxes" or other environmental charges may fail there, "where there's no one worth taxing" (in poorer countries for example), where they may mobilise resistance as a result of socially unjust distributional effects or where expenditure in this regard can easily be externalised as a consequence of the specific economic system (China, Latvia). If stringent environmental standards are imposed in a situation of a weak environmental movement, underresourced environmental authorities and a low level of environmental awareness, the consequence will probably be large "implementation deficits". Even the largest and best-resourced environmental bureaucracies will scarcely develop innovative strategies if no *esprit de corps* with respect to environmental protection can grow within it. The following trend is more likely: "The institutions get bigger and the environment gets worse".

The constitutionally assured right to a healthy environment or the reification of the precautionary principle in the statute books will show little effect as long as legal regulations (such as liability rules in civil law) strengthen the hand of the polluter or the necessary data can not be produced. Environmental labelling, as the last of a long line of possible examples, only becomes effective where there are environmentally conscious consumers, neutral testing committees and an objective mass media.

The conclusion from these considerations can therefore only be: there is no one best instrument, no single stairway to environmental heaven. What is needed is a panoply of environmental policy tools, a well-filled toolbox - and the ability of actors to use the instruments adequately according to the nature of each problem and the situative conditions. It is further evident that policies, instruments, etc. developed abroad must be fitted to the problem set and capacities of the importing country. Japan has developed great facility in this regard: her compensation system for pollution-related health damages, for example, scarcely betrays its lineage as a distant cousin of Great Britain's approach to epidemics in the 19th century and the Dutch system of funds for material damage through air pollution.

The final aspect of cross-national policy transfer which must be considered is that they possess in general an inherent ambiguity in their mode of effect, which means that they can have a positive or negative effect as regards the goal of a more progressive environmental policy, according to the particular context conditions. Their effects can also alter in the course of time. A few brief examples should serve to illustrate this point.

The improvement of the legal position of victims and the general public against state and business projects or decisions is everywhere accepted as a vital basic precondition for a progressive environmental policy. This was unambiguously so in the case of Japan (cf. Miyamoto). But this must, as is shown in the commentaries, be examined in more detail. In the case of Germany, for instance (cf. Reh binder), ambivalent effects can be pointed out, which arise when general participatory deficits in environmental politics are compensated for through a strengthening of the legal positions of individuals and environmental organisations (perhaps through the introduction of a basic environmental law or the class action): this could, especially as the position of the administrative courts is thereby strengthened, trigger a further slide into simple reliance on litigation (a kind of secondary regulation through court decisions), which could make the system, already over regulated, still less flexible. It is evident from the example of the USA (cf.

Rose-Ackerman) that an extension of the general right of citizens to participate in environmental decision-making can lead to an intensification of conflicts and the blocking of vitally necessary environmental policy decisions. Furthermore, it can lead to endless courtroom battles and impenetrable barriers to investment projects, triggering a backlash as soon as a change in the general environmental policy framework conditions grants economic actors and their political supporters a more favourable position in the power structure.

Because of these experiences it seems more sensible to structure the entire environmental decision-making process more transparently and to increase the use of economic incentive schemes, in order to make environmental policy decisions more acceptable to all actors through an increase in their democratic legitimacy and economic efficiency. This would have to be associated with, among other things (cf. Rose-Ackerman), an extension of the courts' competence to monitor the honouring of procedural requirements (e.g. concerning transparency and participation). In the case of Germany, however (as mentioned above, cf. Rehbinder), an increase in the severity of the existing "red-tape syndrome" is the feared outcome; in Italy also (cf. Dente & Marson), the considerable deficits within environmental politics can be explained by the few opportunities for participation by the general public in planning and decision-making processes, as well as by the extreme orientation of the courts and authorities around procedural aspects at the expense actually looking for a solution to the problem. In Switzerland, on the other hand (cf. Knoepfel), a high level of direct (in referenda and popular initiatives) and legal (the right of action for environmental organisations) influence on the part of the general public has proved a positive factor, as the willingness of authorities and businesses to engage in dialogue was increased thereby. Admittedly, the Swiss environmental organisations are generally to a great extent dialogue oriented and capable of cooperation. In addition, the administrative courts exert relatively little influence on environmental policy disputes, and the result is therefore a stronger politicisation in place of a "juridification" of disputes. Nor should one lose sight of the fact that certain legal possibilities for obstructing environmentally damaging projects can be "universally" applied, i.e. by other groups, and against environmentally progressive measures, as has been the case in Germany (with bio-mechanical waste treatment plants) or action of great social import (for instance blocking the construction of homes for the disabled or rehabilitation houses).

The ambivalence argument applies also to fundamental structural principles of environmental policy. This is particularly evident from the debate as to whether a decentralised or centralised state (federalism vs. unitarism) is more favourable to environmental policy. While in some countries, centralising competences partly - for some areas or time periods - had a disadvantageous effect (Germany, Japan, Australia, Italy, France), an extensive decentralisation in other countries has brought considerable problems for the development of a consistent national environmental policy in its wake (Latvia, Spain). The case of Latvia (cf. Seglins) makes plain how urgently needed the development of national competences and, simultaneously, of local and regional capacities in the environmental field in fact is. The earlier practise of massive centralised intervention in the communes is no longer possible, after the systemic political changes., but there is now a lack of environmental policy resources and - as a result of economic turbulence - of sufficient interest within the now largely autonomous communes to use their new competences for the improvement of environmental protection. In Spain (cf. Aguilar), there was until recently an extremely weak institutionalisation of environmental protection at national level (no environment ministry until 1996), as well as a lack of functional mechanisms for the nationwide coordination of environmental policy activity by the politically powerful *Regiones*. A large part of the poor performance of Spanish environmental policy is laid at this

door. In the centralised state of France, on the other hand (cf. Larrue), there has been a long tradition of state intervention in the regions and in the private sector, which is sometimes used, however, to build up cooperative relationships with and between the communal and economic actors. In Australia (cf. Papadakis), the organised environmental movement supported the extension in influence from the centre against that of the individual states, in order to make possible an environmental policy which was freer from regional special interests and incompetence.

It is therefore clear that the same institutions or systems of administrative competence can act in one context as environmental policy innovators, in another as the brakes on the wagon. Germany is incidentally also an example of the changing significance of the structure of environmental policy competences in the course of time: at the inception of modern environmental policy, a centralisation of competences for environmental policy began which was necessary and which proved practical, as the state and communal institutions which had held the most important regulatory competences until then had mostly only a slight interest in environmental policy, and belonged themselves to the major environmental polluters. Through this centralisation of competences, more stringent environmental regulations could be pushed through, even against the resistance of the states and communes. At that time, central government was an environmentally progressive actor. As time progressed, the density of centralised regulation increased, but the communes became environmentally more progressive, while the central government's environmental policy lost some of its impetus. Now the centralised state competences and regulations began to block a flexible environmental policy in innovative communes. Finally, environmental initiatives by communal bodies in Japan, some of which even broke regulations laid down by the centralised state, had contributed to a dynamism in environmental policy; countless political instruments which had been developed at communal level were then taken up into national policy. Thus experience with neocorporatist and pluralist competitive systems of interest mediation has been mixed. Their ability to reduce social conflicts and generate consensus on important issues (Switzerland, Denmark, Netherlands) is balanced by their tendency to make restrict the access of proponents to the policy-making system (Germany, Japan). Nevertheless, it appears that the political consensus on having a strong environmental policy is more easily reached by neocorporatist, cooperation-oriented systems, and that this consensus is a prerequisite for a cohesive and coherent governmental approach to targeting resources for a fundamental environmental policy change.

4. Commentaries on German Environmental Policy by Experts from 14 Countries

4.1. Australia

Elim Papadakis

Although there are inevitably many important differences between the two countries, one is struck by some of the similarities, both in terms of failures and successes. As in Germany, many of the powers to legislate, manage and regulate the environment have been invested in the states (Papadakis 1993). Likewise, the major impetus for getting the environment on the agenda in the 1960s came from social democratic or labor parties. The 1961 speech by Willy Brandt about the sky over the River Ruhr is matched by the 1965 platform of the Australian Labor Party (ALP), which represented some of the most significant statements by a major party for environmental protection. Notwithstanding the lasting attention by the ALP on economic issues,

in the 1960s it began to emerge as the leader on environmental matters. This may partly derive from its opposition to the testing of nuclear weapons since the 1950s, and from its proximity to protest movements against nuclear testing. There are strong parallels here with the German experience. Furthermore, as an opposition party, the ALP could detach itself more easily from some of the institutional practices and inertia that the conservative (Liberal and National) parties had created through their electoral victories in the 1950s and 1960s, and their almost exclusive attentiveness to economic development rather than to environmental issues (Papadakis 1996). Again, there are similarities to the dominance in the Federal Republic of conservative governments during this period. Whereas in Germany many responsibilities pertaining to pollution control were transferred from the Ministry of Health to the Ministry of the Interior in 1969, in Australia the conservative regime created, in 1971, a Department of the Environment. However, the powers of the federal government in Germany and the creation of an Environment Agency appeared to position Germany some way ahead of Australia. In both countries there appears to be, in the early 1970s, a recognition of the importance both of the polluter pays principle and of international cooperation.

Despite these advances in both countries and the interest among elites influenced by the findings of the Club of Rome, from the mid-1970s governments became less interested in environmental protection. This was linked to the unfavorable economic conditions. In Australia both the conservative governments (which held office between 1975 and 1983) and the ALP opposition made little effort in their electoral policy speeches to place the environment on the agenda. Interestingly, at this moment in time, there emerged in both countries powerful social movements against the development of nuclear power in Germany and of uranium mining and the destruction of forests in Australia.

These movements created enormous pressure on governments in both countries during the 1980s. From 1983 onwards, following the election of the ALP to government, there began a decisive shift towards placing the environment on the national political agenda. It is interesting that in Germany a conservative government also experienced this pressure. Although, in the 1970s, Australia did not experience the proactive role played in Germany by the leader of the FDP and Minister of the Interior Genscher, the formation of the Australian Democrats in 1977 and their election to the Senate meant that over time a minor party came to play a crucial role in advancing environmental policies and in opposing both uranium mining and the nuclear industry. Concern for the environment was a fundamental objective of the new party, and this was reflected both in its membership and its participatory political style. Unlike the Green Party in Germany, the Democrats did not originate from a powerful anti-nuclear movement. A more radical green political organisation, the Nuclear Disarmament Party, emerged in 1984 in response to the activities by the peace and environment movements and to the decision by the ALP to allow the opening of a uranium mine. Within six months of its formation, the NDP attracted 7.2 per cent of first preference votes in elections to the Senate. At that time this represented a higher proportion of votes than the Green Party was able to attract in Germany.

The rapid demise of the NDP was due partly to its own internal problems and partly to the capacity of the ALP to adapt rapidly to changing circumstances. The same capability for adaptation arose in Germany. In adapting to new circumstances, the ALP was, to a degree, following the path set in the 1970s, when new institutions were created to deal with environmental issues, like the Australian National Parks and Wildlife Service and the Australian Heritage Commission. Their creation reflected a direct response by governments both to objective problems and to pressure by small groups of activists, including members of administrative and

political elites. During this period all state governments established departments of the environment or of conservation. There was also a rapid extension of the amount of land dedicated as national parks and reserves (Papadakis 1993). The states also established institutional structures for the preservation and management of wildlife and of historic sites and of areas of geographical, natural or scenic interest and to promote public use and enjoyment of reserves as well as education in their purpose and significance. Again, there are parallels to the moves in Germany towards more comprehensive structures to deal with environmental concerns.

However, by contrast to Germany, the question of the rights of states in the federal structure assumed a strong significance in disputes over environmental issues. In the conflict over the proposed construction of the Franklin Dam in the early 1980s, the Tasmanian state government was confronted by environmentalists who pleaded for federal intervention and for more central regulation of environmental policy. Though the ALP supported environmentalists, it initially refused to address the issue of state rights. In the 1983 federal election, the conservative parties stood for the retention of state rights over environmental policy. Even though the liberal government under Malcolm Fraser had itself overridden state rights in trying to save the Great Barrier Reef, Fraser Island and Kakadu National Park. Moreover, it had used section 51 of the Constitution to prohibit the export of minerals from Fraser Island after mining had been approved by the Queensland state government.

The ALP, through its stance on this issue, gained the electoral support of conservation groups and stood to benefit from the nationwide support for federal intervention to stop the dam. Once in government, the ALP also used existing legislation to override state rights. In Australia, there appears to have emerged a much sharper conflict over the question of federal and state powers. The ALP government used its powers over external affairs and over corporations to pass the World Heritage Properties Conservation Act (1983) in order to prevent construction of the dam. An appeal against the legislation was defeated in the High Court. The decision reflected a continuing trend towards the expansion of the power of the federal government (that could be used to influence environmental policy). Problems of interpreting the powers of the states and the federal government have become more acute with the pressure to tackle environmental problems. However, some environmentalists have been concerned that the federal government has failed to follow through these early initiatives and have found the federal structure wanting in addressing major environmental problems (Toyne 1994). There may be less consensus about and effectiveness in the operation of administrative structures in Australia than in Germany. By contrast to Germany, some leading environmentalists in Australia place a high value on a stronger role for the federal government rather than the states and there have been less opportunities for innovation at state level (perhaps with the exception of Tasmania) than in Germany.

In order to overcome both the resistance by the states to federal intervention and to address the conflicts between developers and environmentalists in the 1980s, the ALP government began a more comprehensive process of establishing new institutional mechanisms. In its attempt to set the agenda, the government exploited much more fully the notion of sustainable development. There are obvious parallels to the German experience. Among the new mechanisms introduced in Australia were the establishment of a Resource Assessment Commission, the preparation of a national Soil Conservation Strategy and the formulation of a strategy for Ecologically Sustainable Development (ESO groups). To tackle some of the most urgent problems, the government introduced legislation like the Ozone Protection Act (1989) to control the production, import and export of chemicals that damage the ozone layer. To address the problem of the greenhouse effect, the federal government, in October 1990, agreed to a pro-

posals by the Minister for the Environment to set as a target a 20% reduction in the emission of greenhouse gases (from 1988 levels) by the year 2005. The Environment Ministry, which in certain respects saw itself competing against the new federal government agencies, reminded people that it had played a key role in introducing legislation like the Environment Protection (Impact of Proposals) Act 1974; Australian Heritage Commission Act 1975; National Parks and Wildlife Conservation Act 1975; Great Barrier Reef Marine Park Act 1975; Environment Protection (Alligator Rivers Region) Act 1978; Environment Protection (Nuclear Codes) Act 1978; Antarctic Treaty (Environment Protection) Act 1980; Whale Protection Act 1980; The Antarctic Marine Living Resources Conservation Act 1981; Environment Protection (Sea Dumping) Act 1981; Wildlife Protection (Regulation of Exports and Imports) Act 1982; World Heritage Properties Conservation Act 1983; Sea Installations Act 1987; Ozone Protection Act 1989, and Hazardous Wastes (Regulation of Exports and Imports) Act 1989. It argued that this legislation was designed to tackle many of the same problems as the ones being addressed by the new ESD working groups. There appears to have been greater tension among bureaucratic agencies in Australia than in Germany.

The creation of ESD working groups was an attempt by the government to defuse the confrontation between environmentalists and developers. The groups represented one of the most comprehensive attempts by a government (both in Australia and elsewhere) to control the agenda and the warring factions, to move away from the attachment by developers and environmentalists to competing paradigms. The involvement of diverse government agencies and interest groups in an effort to define and implement ESD principles was itself an achievement. Participation in the ESD process moved some environmentalists to give greater recognition to market-based strategies.

Although most of the recommendations of the ESD groups have not been implemented, and the Australian government, compared to the German government, has delayed initiatives to tackle the emission of greenhouse gases, there has been a significant shift, as in Germany, towards more dialogue and cooperation. This applies, for instance to issues like soil degradation and to the involvement by government in bringing together the National Farmers Federation and the Australian Conservation Foundation. This represented a significant attempt to integrate development and environmental protection and to influence patterns of coalition formation. It should, however, be emphasised that the government was partly responding to factors that also arose in Germany during this period, namely:

- the willingness by interest groups to cooperate on environmental matters;
- the lowering of resistance by business and unions to adapting part of the green agenda;
- the emergence of electoral competition (and the fact that in the 1983, 1987 and 1990 elections the ALP was successful in attracting "green preferences", which are widely credited with having a crucial impact on the final outcome);
- the emergence of powerful environmental groups which experienced a rapid rise in membership in the late 1980s (Papadakis 1993);
- more favourable coverage of environmental concerns by the media (Papadakis 1996); and

- decisive shifts in public opinion, especially around 1989, in the wake of concern about the greenhouse effect and the depletion of the ozone layer, and the resilience of public opinion on environmental issues even in the context of an economic recession (Papadakis 1994).

As in Germany, there is still a primary focus on reactive and curative measures, rather than on long-term strategies and the application of the precautionary principle. Still, there has been a shift, as in Germany, towards more dialogue, towards a better-informed public and towards the introduction of improved procedures for tackling environmental issues. In both countries, the federal government has also come to play a more innovative and strategic role in environmental policy and to promote international cooperation.

Despite the numerous differences, both in the institutional context (the rules, norms and procedures) for policy-making, the history and the implementation of specific policies (notably the more progressive role played by Germany in some international fora), one is struck by the strong parallels between the two countries in terms of the adaptation by political parties, the innovative strategies adopted by governments, the hurdles to effective long-term policy-making, the shifts in direction by the media, the changes in public opinion and the lessening of resistance to placing the environment high on the political agenda.

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4.2. Austria

Marina Fischer-Kowalski

(1) If Germany can look back upon a 25-year history of "treading a well-worn path to the top of the international field" of modern environmental policy, Austria might be seen as the dog trotting along behind - or so I suspected, before taking a closer look. But closer examination revealed a different picture. Austrian environmental politics in the last 25 years has centred around very much the same issues, and has often had to struggle with the same obstacles, against a fairly similar political, cultural and institutional background as Germany, but there is little sign of its being pulled along on a leash, and this for two reasons. Neither is there a consistent pattern of one country coming up first with legislative measures or institutional reform, nor can it be claimed that the results of German policy have been more radical or successful, in terms of the goals it has set itself.

For example, Germany was first in bringing reforms to overcome institutional obstacles to federal legislation on pollution - this debate took much longer in Austria, and some would say that it has never properly been resolved. Germany founded a Federal Environmental Agency in 1974, Austria in 1986. On the other hand, as early as 1959, Austria implemented quite a

successful policy on waste management and protection of ground water resources and, supported by an active tourist industry, ran from the 1960s onwards a very successful programme for cleaning up its lakes. A very similar Ordinance on Large Combustion Plants to the one Germany issued in 1983 was passed in Austria in 1980. It would take a more in-depth analysis to build up a comprehensive case, but a superficial glance certainly seems to show more variability in the sequence of events than at first suspected. In fact, this would appear to back up one of Weidner's theses, namely his reference to influence from the US. US environmental politics seems to have influenced both countries until well into the 1980s. Nonetheless, a certain degree of leadership must be attributed to Germany in one respect: in Austria there was certainly nothing comparable to the Environmental Programme of the SPD/FDP government in 1971. Moreover, there was and is no institution with the intellectual and political stature of the Council of Environmental Experts (SRU, founded in 1971).

As far as realising its goals is concerned, Austria has a very similar record of success and failure to Germany's. In two instances, however, Austrian environmental politics has arrived at more radical solutions. As far as environmental transport regulations are concerned, emission standards, speed limits and a slow-down in motorway construction (which Weidner does not consider to belong to environmental politics at all), could be implemented more easily in a country like Austria, with no automotive industry; secondly, the Austrian government - admittedly forced into it by a referendum - completely banned the use of nuclear energy as early as 1978.

If one can assume, then, that US influence has played a major role in moulding both Germany's and Austria's environmental policy, and if one agrees with Weidner - as I do - that the driving forces towards such policies are not to be found within the ruling political parties, let alone among the so-called "social partners", but in public opinion, grassroots movements and NGOs, one can find little explanation for Germany's (and perhaps also Austria's) leading role in the field. Why should there be so consistently high a priority given to environmental concerns in opinion polls, such large donations to environmental organisations, and such interest on the part of the media? Could it lie in the relatively low level of social conflict (e.g. strikes, arguments over distribution, etc.), compared with that in the Mediterranean region or Great Britain, for example? This is pure speculation, a thorough international comparison would be required to arrive at a more objectively based interpretation. As Dunlap and Mertig (1994) have shown in an excellent comparative international survey, it is clearly not wealth that determines a country's attitude to the environment.

(2) Weidner's paper, perhaps as a result of its historical orientation, deals more with environmental politics qua pollution control than with either the more traditional area of conservation, or the latest integrative approaches to "sustainable development". Had the study focused more on these two realms, I am not so sure that German environmental policy would have appeared so successful in the international arena. As regards the strategic implementation of policies for sustainable development, the Netherlands seem to have taken the lead, while in Austria, an effort in this direction is the so-called National Environmental Plan (NUP), drawn up by experts, representatives of all the relevant federal ministries, the "social partners" and the NGOs. It calls for pretty fundamental changes in the utilisation of resources and in virtually all areas of the economy and society. As yet it is by no means clear what will come from this plan in practical terms - it seems at the moment to have little relevance to the general political discourse. Similar developments seem to be taking place in Germany, with the so-called "Enquete Kommission zum Schutz des Menschen und der Umwelt", an important actor, supported

strongly (indeed sometimes pushed along) by several research institutes. Policies for "sustainable development" in industrialised countries may not require "environmental politics" so much as involve a far wider range of concerns. One of the core measures in these policies will need to be, I believe, a fundamental shift in taxation, away from labour and onto energy and resources. There is increasingly serious and informed discussion on this in both Germany and Austria, but the political institutions in both countries have so far lacked the strength and determination to leave their old ways behind, and set out on a new path.

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4.3. China

Yu-Shi Mao

"Environment or development?" is a crucial question faced by all countries, whether developed or developing. Germany, a country with great economic strength and a powerful capacity for innovation, has achieved a great deal in environmental protection, and due to its high standard of living, its population has high expectations of environmental quality. This means that there is a great demand in Germany for environmental protection, and a large capacity for satisfying the demand. These conditions are not present in developing countries. It is obvious that both demand and capacity are dependent on the level of economic development. Development is thus important as a first step towards environmental protection.

Development may take priority, but this does not mean that all forms of development are appropriate. During the development process different political and economic institutions have different effects on the environment. Policy and institutions are defined by the historical and cultural background of each country, but the decision-making process is a process of facing political challenges. In the case of Germany, political parties, citizens and industry are the major actors, while in the case of China, all three actors are a part of the process also, but the dominant role is played by the Party, as laid down in the Chinese constitution. In addition, the international community plays a very important role in Chinese environmental issues; the idea of environmental protection, the technology and the scientific information required have all mostly been imported from abroad. In addition, Chinese leaders like to be able to demonstrate Chinese achievements to the international community, and this exerts a unique political pressure on them.

A plurality of independent political actors, and transparency in the decision-making process help in arriving at the correct decision, or at least in avoiding serious mistakes. The German people have had comparative success in addressing their environmental problems not only because of their economic strength, but also as a consequence of their particular decision-making procedures.

The answer to the question "Development or environment" can never be a simple "Yes" or "No", but rather an elaborate choice from a continuous spectrum of options. Economics, seen from one point of view, is a science of choice. The optimal choice should fall at a point where a positive effect on development (or the environment) is produced, whose economic (or environmental) benefit equals the negative effect on the environment (or development), where sacrifices will have had to be made in order to make this choice. If these two effects are not equal, the optimal solution requires that we pay more attention to the side which produces a greater benefit. This principle can be used as a powerful tool in the evaluation of environmental policy.

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4.4. Denmark

Mikael Skou Andersen

While the exchange of experiences in environmental policy and concepts of regulation has historically been more intense between the Nordic countries (e.g. through the Nordic Council of Ministers and other institutionalised forms of Nordic cooperation) knowledge of Germany's environmental policy experiences has remained patchy and limited in Denmark. An important reason seems to have been linguistic, but it was also of some importance that Germany was not looked to as a model after World War II, as it had been previously in this century. The Nordic countries, on the other hand, were more compatible not only linguistically, but also politically. As strongholds of social democracy, they considered themselves reform-oriented, and officials of their respective governments looked to each other to learn from one another's experiences and to reach workable solutions.

Until the late 1980s Germany was generally seen as a country which paid little attention to environmental protection, being best known in the media for the continuing conflict on the use of nuclear power. The "greening" of Germany during the 1980s came therefore as a surprise, not only to policy-makers and officials but also to Danish industries and farmers who exported to the German market. Within the European Community, the more active German policy was

also something of a revelation. Historically Denmark had perceived itself as an isolated front-runner in EC environmental policy.

While relatively little was known about German experiences in environmental policy, even among specialists in the Ministry of the Environment and its agencies, the intellectual debate within the opposition in Germany had been an important source of inspiration for Danish environmentalists since the 1970s and, because of the so-called "green majority" in parliament⁶, to some extent also for Danish environmental policy-making in the 1980s. The books of Joschka Fischer and Oskar Lafontaine were read and debated, and became important points of reference in the Danish environmental debate. Ideas conceived in Germany (such as ecological tax reform) were sometimes applied and implemented more rapidly in Denmark (Andersen, 1994b) than in Germany.

This short Danish retrospective on German environmental policy will focus on three themes: the asymmetrical trade relationship between Denmark and Germany and its impact on environmental policy-making; the impact of German standards and principles on domestic environmental policy in Denmark, and the Danish-German relationship in EU environmental policy.

(1) The asymmetrical trade relationship between Denmark and Germany and its impact on environmental policy-making

No matter how one measures it, Germany is Denmark's largest neighbour: in terms of population, industrial output, as well as market and tourist potential. Thus Germany is the single most important export market for Danish products, and accounts in value for about 20-24% of total industrial exports.

On the German market, however, Danish products command only a minor share of total imports. On the one hand, this makes Danish producers vulnerable to terms of competition and factor costs on the German market, on the other hand, Danish exports are no greater than they are able to find specialised and often lucrative niches therefore on the German market.

Thus, the asymmetrical relationship between Germany and Denmark has been both a constraint on, and an asset to, Danish environmental policy. On the one hand, concerns about trade distortions have created certain limits on how far Denmark could continue to lead from the front in its domestic environmental policy. One area where this is particularly important is where taxes on pollution and energy use are applied. The taxation of gasoline, for instance, has been linked directly to the level of taxation in Germany, in order to avoid cross-border shopping, since Germany is within a few hours by car accessible from anywhere in Denmark. In other fields, such as the Danish CO₂ tax, Denmark has gone further than Germany, but always with an eye to the situation across the border, and with a care to find solutions that would not lead to the relocation of industries.

On the other hand, as German consumers have become "greener", Danish manufacturers have been readier to exploit stricter domestic requirements as an asset in their approach to the German market. Even if the market for ecological products is still limited in Germany, it is large enough to be lucrative for all kinds of Danish products, from refrigerators and windmills to window frames. Thus, in a survey of producers in the wood and furniture industry, one of the

⁶ Between 1982 and 1993, a so-called "green majority", consisting of centre and left parties, set itself against Denmark's minority government in parliament, cf. Andersen, 1997.

important reasons listed for voluntarily substituting VOC-based with water-based lacquer (or other alternatives) was the demand coming from retailers of their products in Germany (Andersen and Jørgensen, 1995). In a period where the organisation of the wood and furniture sector was reluctantly negotiating new and stricter standards with the Danish authorities, the impulse from the German market effectively decided the matter itself.

On the whole, it is gradually being realised that there are many instances in which environmental standards are at an equally strict, or an even stricter level in Germany than is the case in Denmark. Partly for the same reason, environmental costs are also often higher on the German market. An important area is waste management, where Germany has stricter requirements for incineration. Waste tariffs, partly due to higher standards, partly for other reasons, are also on average far higher in Germany. Even though Denmark levies a national state tax on top of municipal waste tariffs, it is up to 800 Kr. per ton cheaper to send waste from Germany to Denmark for incineration. Furthermore, the higher costs for purification of drinking water in Germany have contributed to the relocation of water-intensive production processes in the fish processing industry from Cuxhaven in Germany to Skagen in Denmark, where groundwater is cheap and plentiful (Andersen and Jørgensen, 1995).

(2) *The impact of German standards and principles on domestic environmental policy in Denmark*

The tradition of environmental regulation in Germany is, with its emphasis on detailed technical requirements, quite different from the Danish tradition, which is based more on broad framework laws and the discretionary powers of local authorities (Andersen, 1994a). The absence of an intersectoral, integrated framework law on environmental protection in Germany has made German environmental policy a tangle of complicated regulations. Still, because Denmark is a relatively small country, it often has to look abroad for scientifically based standards and limits.

Traditional sources in the domestic standard-setting process have been the US Environmental Protection Agency, the Swedish *Naturvårdsvärk* as well as several German standards, such as the Technische Anleitung Luft (technical guidelines for air quality). German environmental policy is, because of its distinctly legalistic tradition, exceptionally rich in standards, and exhibits a level of detail that appeals to environmental experts. There is only anecdotal evidence on the transfer of German standards to Denmark, but one example relates to the Danish guidelines on air pollution emissions. These guidelines, which are published by the Environmental Protection Agency and used administratively by local authorities, have been negotiated with a close eye to the German TA-Luft. The Danish guidelines, less detailed than the TA-Luft, contain a clause which simply refers the local authorities to the TA-Luft in cases where the Danish guidelines do not set any standards themselves.

Another important difference between Germany and Denmark is that there is generally more emphasis on the responsibility of public authorities for implementation of environmental policy in Denmark, which is bound up with the historical principles of the organisation of the welfare state. While in the German tradition of the welfare state, religious and other private institutions are allowed to perform important functions in the delivery of social services, such services are normally vested within the administrative structure of state and local authorities in Denmark.

With regard to environmental policy, a system such as the *Duales System Deutschland*, where private operators take responsibility for the recovery of waste, is very different from the tradi-

tional way of organising waste management and other forms of pollution control in Denmark. The use of private operators has been viewed with suspicion, and public control and operation by local authorities is seen as an important instrument for securing environmental policy objectives. Private contractors are used only in a more limited way, through tendering procedures for particular services. Until now the DSD is certainly not viewed as being something to copy in Denmark, which seems to be a quite different response to that of some other EU member states (to date France, Belgium, Italy and Netherlands are reported to be copying the principles of the DSD).

(3) *The Danish-German relationship in EU environmental policy*

As regards EU environmental policy, Germany was important in adding the dimension of environmental policy to the work of the Community. It was under a German presidency and with a German Commissioner for the Environment that the cross-boundary problems of acid rain were put onto the agenda of the European Community in 1983, and it was not least Germany and the Netherlands who were among the most active member states in environmental policy-making in the late 1980s. In this period Denmark was rather reluctant with regard to EC environmental policy, and leaned rather towards the so-called environmental guarantee in the treaty ("being cleaner than the rest"), than towards active environmental policy-making.

In recent years the roles have been reversed. Denmark has entered a phase of taking a very active role in EU environmental policy, and although Germany is still seen as a potential ally, there is a general impression that Germany is on the retreat and has renounced its active role at EU level. Germany orients itself more and more towards the two other large member states - France and the UK - and now seems less interested in forming alliances with the smaller front-runners in environmental policy. There are several examples of this new German position, for instance the recent decision on the LIFE programme, which became more limited in scope than Denmark would have liked it to be. Germany's lack of will in implementing a CO₂ tax is also frustrating to Denmark and other member states, which have already volunteered to introduce such taxes, and which to some extent have counted on Germany's willingness to take some form of domestic measure, in the absence of an EU-wide agreement. Because of Germany's decision to hold out for an EU agreement, little technical work has been carried out on CO₂ or energy taxation, and even if it should be decided to take domestic measures, it will be some years before a CO₂ tax could be introduced in Germany. This position undermines the steps taken in Denmark and elsewhere, and lends support to lobbying from industries which are against CO₂ taxation. While Germany was a driving force in EU environmental policy in the late 1980s, it now seems to have placed itself in a more comfortable position between the laggards in the South and the frontrunners of the North.

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4.5. France

Corinne Larrue

The main differences between Germany and France in respect of environmental policy over the past 25 years can be summarised as follows:

(1) *More environmental awareness, combined with greater pressure on the environment in Germany.*

The pressure exerted on the environment by human activity in Germany would appear to be more significant than that in France: average population density in Germany stands at 223 inhabitants per km², at 103 in France. A similar difference appears when comparing GDP/ km², which stands at \$4,027 billion/km² for Germany, compared to \$1,500 billion/km² for France. From this we can assume that the impact of human activities on environmental quality must tend to be correspondingly higher in Germany than in France.

Such a situation might explain the greater level of environmental awareness in Germany, compared with France, and in fact, this higher level of individual involvement by Germans appears to be the most important difference between the two countries. Even if the level of environmental awareness is tending steadily to rise in France, the French population in general does not pay much attention to environmental protection issues, and this increasing environmental awareness tends to be focused more on the individual's immediate surroundings than on general or global issues.

(2) *More political importance for the environment in Germany*

The second most striking feature from a French point of view is the importance of the Green Party (*Die Grünen*) in Germany. The French green parties have not as such succeeded in establishing themselves as important actors in the political arena. This is mainly due to the French electoral system, which is based on absolute majorities and not on the proportion of votes cast - except at regional level. Moreover, the political system does not constitute as important a resource for environmental policy in France as it does in Germany.

Despite this, there was a short period of positive influence from the green parties at the beginning of the 1990s, just before the last parliamentary elections, where they were seen as important minor players within the political game. But their poor showing in the elections themselves left them greatly weakened afterwards.

(3) *Ambitious programmes in Germany - although without there always being adequate means provided for their implementation*

In the field of pollution prevention, German legislation appears more stringent than its French counterpart. In general, French environmental objectives are far less ambitious than those laid down officially in Germany.

However, two things suggest that we should qualify this comparison. Firstly, the advent of European Environmental Directives has tended to result in the stated objectives of both nations' policies moving closer together, and European matters are increasingly coming to be considered serious issues in France. Secondly, comparing the means allocated to environmental policy implementation in France and Germany, one might conclude that economic instruments are used more often in the former. Even if their use is aimed rather at raising revenue than at providing incentives, these economic instruments do exert greater pressure on French businesses and farmers than regulatory instruments on their German counterparts. Germany is far more well-known for its subsidies to industry than for its taxes on businesses.

German environmental policy seems also to be more regulatory in general, and thus more conventional than that of France. This can be traced back to the different patterns of public intervention in the private sector in the two countries. The French government has a long interventionist tradition, which provides an important means for promoting cooperation and consensus-building with and within industry.

As regards the outcomes of the two policy styles, it is difficult to assess which of them obtains the better results. Weidner's report tends to give Germany a low score for environmental policy implementation. I am not sure that France would earn a higher one. The jury is still out as regards the relative merits of either failing to implement higher standards or succeeding in implementing lower ones! However, such opposing extremes usually share a common factor: the greater the access to implementation, the more implementation problems will be anticipated, and the less ambitious will be the objectives formulated.

(4) *Federalism versus centralisation*

A comparison between federal (German) and centralised (French) environmental policy would go beyond the scope of this short commentary. Nonetheless, in reading Weidner's report, one fails to find all that many differences between the two systems, at least as regards cooperation between central and local levels in environmental policy. The French central government also needs to cooperate with decentralised local and regional bodies in order to implement its policies. Local governments usually help central government by giving it local legitimacy and by placing financial resources at its disposal, which is not so far removed from the German case.

(5) *Similarities as regards periodicity*

Finally, an example of similarities between the two national policies should be mentioned. In both countries, periods when the environment is in the ascendant as a political issue alternate with periods of relative weakness. It might be interesting to undertake a more in-depth comparison here, and attempt to point up the common explanatory factors.

(6) *Conclusion*

In conclusion, one can say that European environmental policy is tending to prescribe increasingly homogeneous policies in both countries at the level of programme formulation. However, in the first place, the timing of their implementation will not suit the policy agendas of the two countries in the same way, and secondly, cooperation with target groups and local governments will obviously take different forms, even if the results are similar.

More generally, it seems that the most important factor in both countries is the learning process that has been taking place at different decision-making levels, and which is now tending to facilitate an integration of environmental issues into policy-making for other sectors.

4.6. Great Britain

Albert Weale

Anyone who has sought to follow the development of German environmental policy from a comparative perspective should be grateful to Helmut Weidner for his careful and comprehensive account of its last twenty-five years. In my experience, German environmental policy is often misunderstood in the UK, usually as a result of selective attention being paid to particular developments, and Helmut Weidner provides an account from which a more rounded picture can emerge.

In this short commentary I shall not take issue either with Weidner's historical account or with his overall evaluation. I shall merely note three interesting features, which I shall call in turn the paradox, the pathology and the promise, and all of which arise from the statement of environmental policy principles identified on pages 5 and 6 of Weidner's account.⁷

First then, the paradox. If there is one notion which has come to be particularly identified with the German approach to environmental policy, then it is the principle of precaution. As Weidner notes, this principle was not clearly enunciated in 1971, but by 1976 it had received a distinctive formulation. Since then, it has been cited not only as justification for important policy developments like the Large Combustion Plant Ordinance, but it has also figured in statements of EU environmental policy and in international fora like that of the North Sea ministers conference. Indeed, so important were its international ramifications in the 1980s that the UK's Royal Commission on Environmental Pollution even included a commissioned paper on the principle in its twelfth report (Royal Commission of Environmental Pollution, 1988, pp. 57-70).

The paradox is that, despite the important role that the principle of prevention has played in the justification of policy, it is difficult to find any examples of German environmental policy from the last twenty-five years which are genuinely precautionary, in the sense that action is taken beforehand to prevent a problem occurring, rather than after the effects of the environmental damage have been identified. As Weidner himself notes (p. 85), the overall nature of German environmental policy has been "reactive and curative". Perhaps the one partial exception to this generalisation is the action promised on reduction of greenhouse gas emissions, but the time-scale is such that it is difficult to know how far this will be achieved.

The pathology concerns a second principle, namely the Polluter Pays Principle. The clearest example of where it has been difficult to implement the principle has been in the field of agriculture, because of the political power of agricultural interests (p. 46). However, it would seem to be more generally true that Germany has been better at subsidising cleaner technologies than it has been at penalising polluting technologies (p.74). In part, I suspect that this is a consequence of the persistence of corporatism in German politics, by which it is possible to mobilise

⁷ Page numbers refer to the study by Weidner mentioned in chapter 1 above ("25 Years of Modern Environmental Policy in Germany").

interests by financial inducements, but difficult to withdraw support given in a previous era. But this is also a phenomenon that is pervasive in most liberal democracies. Despite the theoretical appeal of the Polluter Pays Principle, it has proved difficult to implement in most democracies, although it may well be that increasing fiscal stringency induces in governments that desire for more sources of revenue. Whether green taxes imposed for fiscal reasons are good for the environment is another question, of course.

The promise lies in the principle of cooperation. The paper shows admirably how difficult it has been to increase the cooperative involvement of German citizens in environmental policy-making, even where the technical competence of the citizens' movements has been superior to that of the public officials. A related, if rather different point can also be made about international cooperation. Adrienne Héritier and her colleagues (Héritier et al., 1994) have shown how, within the European Union, there has developed a regulatory competition, with different countries seeking to advance their own conception of environmental problems and priorities. Competition can sometimes be useful, if it leads to the production of innovative policy ideas. But social learning, both within and between countries, is best advanced when there are also adequate cooperative processes of evaluation and analysis in place, to identify which approaches lead to success and which to failure. From this perspective, the promise of the cooperation principle still has to be realised.

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4.7. Italy

Bruno Dente and Anna Marson

Compared both world-wide and within Europe, Germany is nowadays possibly the most advanced country as regards environmental protection, in at least two respects: technological progress in environment-related fields, and the common public perception of environmental issues. The former gives German industry a remarkable competitive edge, whereas the latter ensures the much-needed public support for political action.

Curious, however, is the fact that the origins of environmental concern in both Italy and - according to Weidner's interpretation - Germany appear to be the same: stimulus from abroad (mainly the USA and international organisations), and a focus on the issue of nuclear power. How, then, are we to explain the deep and obvious differences in the end results up to now?

Further to the rich and interesting material which Weidner has offered us, we have tried to understand which success factors arise as most interesting to the Italian perspective, taking a certain care to distinguish between reproduceable and non-reproduceable factors. The basis of such an evaluation is formed by the relationships between a number of potential and actual political actors: the scientific community, private companies, the institutional system, private citizens and the European Union. This theoretical framework of *relationships* between scien-

tific *and* political activity, institutional structure *and* political action, society or the grassroots *and* political action, helps in distinguishing meaningfully between the two countries.

Firstly, in the case of Germany there is evidence of a strong connection between theoretical expertise and practical implementation, whereas Italy has been unable to develop any such institutional relationship. Scientific expertise and its use by the State has been an important factor in the success of German environmental policy. Although traditional scientific knowledge about environmental processes is being more and more put into question, the German government had on the one hand the opportunity to exploit a better-structured research system than the Italian, and has on the other hand set up effective mechanisms to ensure a certain level of up-to-date expertise within public administration, particularly through the Federal Environmental Agency and the Council of Environmental Experts. Italy's research sector is neither as highly developed nor as competitive, and there are no institutional structures to enable the systematic collection of knowledge about those pollution processes which the government is supposed to regulate. Its Environmental Ministry, organisationally quite weak, neither lays down regulations (this being left largely to the EU and to regional government) nor does it carry out monitoring, but simply dispenses money - without even being very efficient at that. The long-promised National Environmental Agency, constituted by national legislation, is still not fully operational.

The second point is that institutional structure in Germany, as a result of its special brand of federalism, leads to government which is both strong and pluralist, while the connections between different levels of government in Italy are weaker and lead to more friction, and cooperation always involves a great deal of effort in practice. The German case is characterised by a strong executive bias: the core of the system can be found in the continuity of the civil service, not in regulations; inter- and intra-governmental cooperation is an established routine. In contrast, there is in Italy a highly sophisticated legislative culture, which is concerned more about procedural than about substantive aspects: this results fairly often in regulations that are difficult to understand and implement, due to the lack of practical expertise in environmental processes within the legislative branch. Furthermore, opportunities for participation have been provided more often in Germany than in Italy, with a stronger emphasis on pro-active behaviour, whether from within the existing political system or as an alternative to it. Participation seems to be a normal feature in the process of making and implementing policy. In stark contrast to this, the environmental movement in Italy has not generally been able to evolve further than the position of vetoing decisions on single cases.

A clue to these differences may be found in the matter of public information about the environment: the German government has a good record in this field, and even supports the publication of information that runs counter to its many official reports; nothing of the sort can be found in Italy. Summing up, it appears that German institutional actors are more convinced of the need for interdependency, and more secure in their own role within the political process. Italian institutions, on the other hand, are more worried about asserting themselves as being self-sufficient, and seem to have a permanent inferiority complex, which results more often than not in arrogant behaviour, conflict and stalemate.

Another point worth emphasising is the way the relationship between government(s) and business was built with an eye to their mutual advantage, and can best be seen in their attitudes *vis-à-vis* Europe. The success of German environmental policy is certainly, to some extent, due to Germany's being the first and largest nation in Europe to make a start in this direction. And so

in this respect, no country can follow the same path today. More has also been achieved in progressive general agreements on environmental regulation between government and industry, thanks to an explicit understanding that political action would be taken to safeguard the competitiveness of German industry, both at national (through heavy investment in "clean" technology) and at international level. For an export-oriented industrial sector like that in Germany, this support has certainly played a major role. This is the reason for Germany's early assumption of a very active role in shaping EU environmental policy, thereby ensuring an international market for its technology. An interesting, albeit by now largely academic question is how Germany - unlike other countries - achieved so much success in Brussels. A tentative answer would be to point to the importance of timing: the enlargement of the EEC's role in environmental protection came onto the agenda at the right time both for Germany, which needed to safeguard its industry's competitiveness, and for the "Eurocrats", who were looking for a new strategic area in which to assert the importance of Brussels. What is in any case certain is that the case of Italy is completely different, as it has remained over the years almost totally dependent on outside influence, as far as input to environmental policy-making is concerned. The greater part of Italian legislation has originated from the need to comply with EU directives, and its often late compliance has prevented Italy from defending its interests at an international level.

Of course talking ecology and thinking industrial competitiveness is an approach that is not typical of Germany alone. Even Italy offers some examples in this regard. The different outcomes, however, may have something to do with the difference in structure of the two industrial sectors: Germany has both many large-scale industries and a sizeable small and medium enterprise (SME) sector, while Italy's large-scale industrial base is narrow - and largely monopolistic - and there is a large number of (often very) small-scale industries. This could result in all of Germany's different interests speaking with a quasi-official voice, while the bargaining and negotiation process in Italy usually involves representatives of only the few large-scale industries, speaking from a quasi-monopolistic position. Thus flexibility for all parties is built into regulations in Germany, whereas in Italy only a few parties' interests receive due care and attention, and the others must rely on partial compliance with regulations as their only means of remaining flexible.

Last but not least, German environmentalism has been able to evoke elements deeply rooted in the collective culture, especially since the issue of the dying forest (*Waldsterben*) was raised. Italian environmentalists have not been able to latch on to any issue that exerts power over the public imagination to the same extent: perhaps this is a cultural divide between northern and southern European countries. We cannot elaborate further on this point, but it should not be forgotten that the existence of a shared belief system with regard to the environment is a powerful success factor in the long run.

To sum up: from our reading of the German success story, as narrated by Weidner, we have gained a strong impression that the single most important factor in explaining the success of environmental policy is the combination of a pro-active state and a perception by all actors of the mutual advantage in cooperation. This may not be an original conclusion, but it explains best the differences between Germany and Italy.

4.8. Japan

Kenichi Miyamoto

(1) Introduction

In its 1993 "Environmental Performance Review - Japan", the OECD had the following to say:

"Over the past two decades, Japan has had the highest economic growth among the G7 nations, while substantially reducing emissions of a number of pollutants into the atmosphere and toxic substances into water, and further containing growth of other forms of pollution and waste production. For instance, while economic growth increased by 122% over the period, SO_x emissions decreased by 82% and NO_x emissions by 21%, the best performance among the OECD countries."

The former West Germany's performance on the environment was also rated highly by the OECD. For example, while her GDP increased by 56% during the 1970s and 1980s, SO_x emissions decreased by 73%, NO_x emissions by 12.5%.

In both countries, major cities and industrial areas were destroyed and the ecosystems seriously damaged during the Second World War. Despite this, both countries underwent rapid reconstruction and now have a high productivity, equal to that of the US. Rapid industrialisation, urbanisation, an increase in the volume of automobile traffic and the spread of mass consumption life-styles have brought about serious environmental problems. It was in the late 1960s that both countries began to take measures to address these environmental issues, and it was these measures which lay behind the aforementioned evaluations by the OECD. However, many unsolved problems remain, and although their international reputations are good, their domestic populations are not yet satisfied with their environmental policies.

As well as similarities, there are differences between the environmental policies of the two countries, as there are differences between the environmental problems they face. These problems result from geographical features, socio-economic and political structures and the historical background. Let us examine briefly Japan's unique conditions and situation.

Japan has an area of 377,812 km², two thirds of which is covered by mountains and forests. Approximately 125 million people live in the small remaining habitable area. 77% of the population resides in cities and about half is concentrated in the three metropolitan areas, Tokyo, Osaka and Nagoya. There are 11 large cities with over 1 million inhabitants. The population density is 330 people per square kilometre (in Germany it is 227), while in the metropolitan area of Tokyo the figure is 5140. Concentrated in the three major industrial areas are not only the infrastructures of major polluting industries, such as iron and steel, oil refining and petrochemicals, but also automobile transportation, and consequently, during the process of rapid economic growth, pollution was also concentrated in those areas (*Table 1*). Pollution problems in these areas during the 1960s were severe, and even today, these areas have to face such problems as ground water and soil contamination, waste disposal, etc.

In contrast to Germany, Japan is an island nation, and has therefore not had to face international river and air pollution to the same extent, although recently, due to rapid economic

growth in the Asian "Tiger economies", it has been confronted with international pollution problems such as acid rain and marine pollution.

Table 1 ***Estimated pollutant discharges (tonne per occupied m²)***

	SO _x		NO _x	
	1955	1971	1955	1971
Coastal Tokyo	18.3	165.2	2.3	68.3
Coastal Nagoya	8.4	71.7	1.0	27.4
Coastal Osaka	27.8	188.2	3.0	61.1
All three	16.2	131.3	1.9	49.8
National	6.6	45.6	0.6	17.0

Source: Environmental Agency

As regards political systems, Japan's is centralised, where Germany has federalism, although the Japanese constitution guarantees a degree of local autonomy in the 47 prefectures and 3300 municipalities. Each local government is recognised as an independent judicial body and has the right to levy taxes, as well as issuing local ordinances. Heads of local governments and members of local assemblies are directly elected by residents. 70% of total fiscal expenditure by both central and local governments goes is spent by local government. On the other hand, 70% of taxation is raised nationally. Thus, without financial assistance from central government, local governments would be unable to function. Local governments can only operate within the limits of legislation enacted by central government. Most activity, such as education and road building, is entrusted to local government, although the standards to which they are carried out are laid down centrally. As will be touched on later, it was local governments who initiated Japanese environmental policy. However, once the Environmental Agency had been established and the associated national legislation and regulations enacted, the innovations and originality of local government was weakened by its being put into a legal straitjacket. In the case of Germany, state governments have sufficient sources of revenue to maintain their autonomy and innovation. This is in stark contrast to the situation in Japan, where local governments are likely to find themselves constrained and controlled by means of national subsidies from central government.

Business circles in Japan wield a great deal of political power. Until the 1980s, Japan was under single-party rule by the Liberal Democratic Party. Business circles had a deal of control over politics and administration, or as it was often called, the political bureaucratic and economic complex. The six large corporations, including the Mitsubishi and Sumitomo banks, formed industrial interest organisations. Since a labour union is an organisation within the corporation, it has been difficult for a union to criticise its corporation, even if the corporation was causing pollution. Recently, Sohyo, the Japanese national congress of unions, which has actively criticised the government, was dissolved, weakening the political power of the labour unions. Until the 1970s, Sohyo had been working together with residents' anti-pollution movements and had supported them in contesting pollution cases in court, but it no longer has such power. Residents' anti-pollution movements have been influencing politics since the 1960s. However,

Japanese NGOs are not yet legally recognised societal organisations, and their financial basis is very weak compared to that of the labour unions, few of them having a full-time staff or their own offices. Recently, the government has been trying to revise the law, and ease the conditions for recognising NGOs as legal persons, but this remains only a plan at the moment. Until now, NGOs have been kept running by the spirit of self-sacrifice in individuals.

The continuing work of environmental protection movements in Japan, including court cases on pollution, has been made possible largely by the activities of the Japanese Bar Association. Acting on the principle of protecting human rights, it has set up a committee on pollution and other environmental issues, and has been engaged in pollution cases - without pay - since the 1960s. Japanese scholars have also organised a discussion group to research and study pollution problems from the standpoint of the victims. In 1963, the Research Commission of Environmental Disruption, the first inter-disciplinary group dealing with pollution in Japan, was set up, headed by Professor Shigeto Tsuru. In 1970, the International Social Science Council held the first international symposium on environmental disruption in Tokyo, with the Research Commission on Environmental Disruption playing a secretarial role. Eminent scientists, including Professors W. Leontief, K. W. Kapp, I. Sachs and others participated in this symposium, where the concept of environmental rights was first proposed. Thus in Japan, it was lawyers and scientists who took the lead in environmentalist movements, and it is they who have had a major influence on public opinion.

In general, the mass media support the victims of environmental damage, although they do not consistently advocate environmental protection. As compared with the late 1960s and 1970s, they were not so active during the 1980s in covering environmental issues.

There is no Japanese political party corresponding to the German Green Party (*Die Grünen*). In the late 1970s, politicians from the Liberal Democratic Party, such as Buichi Ohishi and Takeo Miki, who were active advocates of environmental issues, promoted policies for environmental protection with the backing of public opinion. However, most politicians were interested in economic development rather than in environmental problems. While the Social Democratic Party of Japan and the Japanese Communist Party have focused on environmental issues as one of their major policy platforms, other political parties have tended to consider environmental issues as secondary to economic and financial ones.

(2) *Features of environmental policy*

2.1 In contrast to Germany, Japan's pollution problems have been serious enough to be the direct cause of the deaths of many people. Typical cases of Japanese pollution problems are air and water pollution caused by pre-war copper refining, Minamata Disease, Itai-Itai Disease and Yokkaichi pollution after the War. As a consequence, anti-pollution measures for traditional problems are at a more advanced stage than in Germany. In the 1930s, the Sumimoto Mining Company (Sumimoto Kinzoku Kozan) installed desulphurisation equipment, probably the first flue gas desulphurisation in the world. Although the development of anti-pollution technology was interrupted during the War and the post-war period, it regained momentum in the 1970s. In 1975, private investment in anti-pollution equipment reached ¥ 964.5 billion, 17.7% of total investment in plant and equipment (*Fig. 1*), and the highest figure achieved anywhere in the world. Due to the oil crises, technology for saving energy and resources has also been developed, while the anti-pollution measures for traditional pollution can be considered complete.

However, Japan lags behind Germany as regards preservation of the countryside and historic places, and the presence of natural environment in urban areas. While one third of German urban areas are covered by trees or green space, only 10% of urban areas in Tokyo and 3% in Osaka are "green", while trees in suburban areas in Japan are also scarce. At present, there are per person 5.5 m² of forest which can be reached by car within an hour, although according to the government's plans this will be increased to 10 m² in the future. In Japan, there are few large city parks like the *Tiergarten* in Berlin. Although there is a regulation requiring that there should be at least 6 m² of park per person, there are only 4 m² in the Tokyo metropolitan area, 3 m² in Osaka City and an average of 2 m² in Japan overall.

In Germany about 570,000 allotments, where citizens plant and grow fruit, vegetables and flowers, are protected by a special Allotments Act (*Kleingartengesetz*). In Japan, the so-called "citizens' farm garden", or allotment, is yet to be institutionalised in law. Most of the allotments in Japan are very small (10 m² on average) and not very clean. As far as urban environmental conservation, Japan is far behind Germany.

During the War, most of the historical buildings and streets in urban areas, except in some small cities like Kyoto, Kanazawa, Nara and Matsue, were destroyed by bombing. In Germany, many historical towns were restored after the War. Germany has laws regulating the height, shape and colour of new buildings, in contrast to Japan where, even though an Urban Planning Act has come into force, it fails to regulate the urban landscape. There is no regulation of the height, shape or colour of new buildings, which has brought urban landscapes into some disorder. While in Kyoto and Kanawa, which were not bombed during the War, historical buildings such as temples and shrines remain, even there some of the urban landscape has been destroyed. Office and apartment blocks have been erected without regulation, and so in this sense, cities in Japan lack the amenities of their German counterparts.

Since the 1970s in Germany, villages have been restored through the "Best-Kept Village Scheme" ("*Unser Dorf soll schöner werden!*"). In this, buildings are restored in the traditional rural style. In Japan, buildings like cabarets and supermarkets have been constructed in villages, and the presence of concrete blocks in this setting means that the villages lose their traditional appearance and become more like cities.

2.2 As regards the post-war settlement, Japan has had few difficulties to face in implementing environmental policy, when compared to Germany, which has experienced the reunification of East and West Germany. In 1972, Okinawa, with a population of 1.2 million, was returned by the United States to Japan, although 10% of the total land area is still occupied by the U.S. army, causing pollution from the base there. The rapid development of tourism has brought with it marine pollution. Since Okinawa's unification with the mainland, its environmental problems have become important to the rest of Japan, while they are less serious than those of the former East Germany. The withdrawal of the U.S. base from Okinawa is a big issue at present.

2.3 In the 1980s, due to the appreciation of the yen, many Japanese corporations began investing in other Asian countries. For example, in the case of Japanese electronics industries, production in neighbouring countries has begun to outstrip domestic production. The so-called "export of pollution" has become a social problem, as rapid economic growth in East Asian countries has begun to cause acid rain and marine pollution. When the Asian Pacific Economic Cooperation Conference (APEC) was set up, it adopted the principle of liberalisation of trade and capital. APEC is not an organisation like the EU, but is rather similar to an economic summit like the G7, and thus does not have the authority to regulate Japanese activities, whereas

EU regulations are binding on Germany. Japan has a great responsibility for the environmental problems and economic development of Asia, but Japanese corporations are not taking enough action. A unitary environmental policy for Asia is required, however it is difficult for all countries concerned to come to an agreement.

2.4 Like Germany, Japan has also just started taking action on global environmental policy. Japan is keeping to the international agreements on CFCs and greenhouse gases, although it is still finding a lot of difficulty in controlling CO₂ emissions.

(3) *A comparison of specific environmental policies*

Anti-pollution policies

Since the 1950s, Japan has faced serious pollution problems. At first, local governments enacted local ordinances: the Tokyo Metropolitan government in 1949, Kanagawa Prefecture in 1951, Osaka Prefecture in 1954, etc., but these ordinances did not provide for regulating pollution. Central government put in place the Water Quality Preservation Act and the Industrial Sewage Control Act in 1958, and the Smoke Control Act in 1962. However, these acts had no effect in controlling Minamata Disease and Yokkaichi pollution. In addition, because of the laxity of their standards, pollution has spread throughout the nation.

Between 1963 and 1964, residents of Mishima and Numazu in Shizuoka Prefecture organised a protest movement against a government project to construct a petrochemical complex, and carried out an environmental assessment themselves. In their assessment, the residents discovered that the complex could possibly cause massive pollution, whereupon they organised a strong movement against the corporations concerned and against the government's regional development programme. Responding to the residents' assessment, the government also conducted an environmental impact assessment for the first time, but the findings of the government assessment were so deficient that they could not satisfy the residents and gain their agreement. In the end, the local governments concerned came out in opposition to the central government, and this regional development project was cancelled. The residents' movement in Mishima and Numazu aroused public opinion against pollution, spearheaded a nation-wide anti-pollution movement and produced an advance in Japanese environmental policy.

In order to solve pollution problems, public opinion and movements against pollution adopted two tactics. One is to advance environmental policy by electing a progressive environmentalist as head of the local government where the majority of residents are motivated by the pollution issue. In the three metropolitan areas, Tokyo, Osaka and Nagoya, where people suffered from serious pollution and destruction of the environment, most of the conservative mayors or governors were replaced by progressives (supporters of either the Socialist Party or the Japanese Communist Party). These progressive local governments enacted local ordinances stricter than the laws from central government. They controlled pollution by private industry through establishing anti-pollution agreements which did not require a legal basis. In 1969, in spite of objections by central government, the Tokyo Metropolitan Government's Anti-Pollution Ordinance was established with the support of nation-wide public opinion. As pollution problems became more serious, and public opinion against pollution became more outspoken, the central government finally enacted 14 laws, including the 1970 Basic Anti-Pollution Law, and in 1971, established the Environmental Agency.

Another direction taken by anti-pollution movements is changing government policy through legal action. In the areas where public opinion against pollution was relatively muted, victims of pollution and their supporters filed suits against the government. There were four in total, concerning two forms of Minamata Disease, Itai-Itai Disease and Yokkaichi Pollution. After 1971, all four cases were decided in favour of the plaintiffs (the victims). During these trials, it was pointed out that the environmental standards specified by law were too lax, and as a result of this, the standards for controlling SO_x and NO₂ were revised or newly laid down. In 1973, in the wake of the Yokkaichi Pollution case, the Pollution Victim Compensation System, by which the government redresses victims, was established.

As Japanese environmental policy has progressed, so has the anti-pollution technology of private corporations improved (*Fig. 2*). Japanese policy was advanced further with the coming into law of the 1978 Muskie Act, the first of its kind in the world.

Notwithstanding all this, since the end of the 1970s, Japanese environmental policy has begun to move backwards, in the wake of the second oil crisis and the appreciation of the yen caused by trade friction with the US. In 1978, the environmental standard for NO₂ was eased, from an average of 0.02 ppm per day to 0.04-0.06 ppm. The criteria for designation as a victim of Minamata Disease have become more restrictive, and the majority of applicants have been rejected. In February 1988, all designation of areas of atmospheric pollution was lifted, with the reasoning that the standard for SO_x emissions had been reached. The Pollution Victim Compensation System was also revised, and the government decided no longer to designate people as victims of air pollution, although with the increase in traffic volume, NO₂ emissions are still increasing. In Tokyo and Osaka, people are still falling victim to air pollution, but central government does not recognise the fact. Instead, the Tokyo Metropolitan Government and the Osaka Prefecture have established their own compensation schemes, whereby they recognise victims who are under 15 years old, and provide assistance for medical expenses. In the early 1980s, as Japan's advanced technology sector progressed, there was contamination from CFCs and trichloroethylene, yet the government took no countermeasures until the end of the 1980s.

It was external pressure from other countries which checked such recidivism in Japanese environmental policy. At the 1989 summit, global environmental policy was discussed, and since then, Japan has begun to improve her environmental policy again. The Environmental Basic Law was enacted in 1989. In 1995, in spite of some opposition from within their ranks, the Minamata victims' organisations accepted the government's compromise offer, and the Minamata case was officially closed. For the first time, the Supreme Court accepted the government's and the Japan Highway Public Corporation's liability for automobile pollution. These facts illustrate that Japanese environmental policy has once again started to move forward.

Environmental policy in Germany also moved on in the late 1960s. However, it took a step back with the oil crisis in 1973, and then found new impetus in the wake of the Chernobyl accident and the acid rain problem in the 1980s. In Japan, the pattern of development was one of progress during the 1970s and regress in the 1980s, while in Germany, the pattern was reversed. Nonetheless, it was popular initiatives, the weight of public opinion and the activities of NGOs that advanced environmental policy in both countries. Unique to Germany is however the substantial and influential role of the Green Party (*Die Grünen*) in promoting environmentalist policies in Germany.

Environmental standards

As shown in Table 2, Japan sets strict environmental standards for SO_x and NO₂ emissions. However, environmental standards in Japan are goals to be reached, not standards which must be followed immediately. As regards SO₂, the environmental standard was achieved as a result of corporations beginning to take anti-pollution measures, after a series of pollution trials judged some of them liable to pay compensation. While NO₂ emissions standards are strict for private cars, this is not the case for larger vehicles, such as lorries. As transportation volumes have increased, the ambient air quality standards have not yet been reached, and if no effective measures are taken, NO₂ emissions standards will not be reached even after the turn of the century.

Table 2 ***Air Quality Standards in Japan, the USA and (West) Germany***

		Japan	USA	Germany (West)
SO ₂ (ppm)	daily	0.04	0.14	—
	annual	—	0.03	0.05
NO ₂ (ppm)	daily	0.04 ~ 0.06	—	—
	annual	(0.02 ~ 0.03*)	0.05	0.04
PM (mg/m ³)	daily	0.10	0.15	—
	annual	—	0.05	0.15

**Calculations based on daily limits*

Source: Environment Ministry Handbook, Environmental Agency

Environmental standards in Japan are strict as regards those pollutants which caused serious diseases such as Minamata Disease, but for other substances, they are not at all strict, if in fact they exist. Japan's environmental standards for mercury, cadmium, lead and dioxins are the strictest in the world, but there are fewer chemicals regulated by law in Japan than in Germany. Standards for asbestos and chlorinated organic solvents such as trichloroethylene were not laid down until 1989 in Japan.

Automobile Pollution Control

As has already been mentioned, Japan implemented controls on automobile exhaust emissions at an earlier stage than Germany. In 1978, Japan introduced exhaust emissions standards for newly manufactured automobiles which were as strict as those in the Muskie Act. The speed limit on ordinary roads is 60 km/h and 80 km/h on motorways, and although not all Japanese drivers keep within these speed limits, more do so than in Germany. Since Japan is a small, urbanised country, the social cost of automobile transportation is high. In particular, transportation by truck and bus is popular in Japan. The number of trucks and buses in Japan is ten times that in Germany. As regards automobile taxation, the rate of taxation on petrol is twice as high as that on diesel oil. Larger vehicles, such as trucks and buses, are diesel-powered and

therefore emit a lot of NO₂ and dust. While government regulation has gradually become stricter, it still fails to control exhaust gas emissions sufficiently.

The amount of public investment in Japan is quite large compared to that in Germany (6.7% of GNP in Japan against 2.3% in Germany): between 1985 and 1989, public investment per person was \$951 against \$373 in Germany. High investment in social overhead capital is one of Japan's major economic characteristics. Half of total public investment goes on transportation and communication, and half of this is spent on road construction. Once roads have been constructed, traffic volumes increase, and thereby also the amount of revenue from automobile taxes, which is used to fund more road building. Vehicle use is a major cause of air and noise pollution in Japan. As mentioned above, the courts ordered the government and the Japan Highway Public Corporation in 1995 to compensate the victims of automobile pollution. This is a major step in advancing automobile pollution control in the future.

A number of pollution suits against public works schemes are underway in Japan, including actions concerning pollution from the Shinkansen (bullet train) and the Osaka airport. There is already a decision in favour of compensation for the victims.

Water Pollution

Unlike Germany, Japan does not have to contend with cross-border water pollution problems. Water management in Germany is at a far more advanced stage than in Japan. In the 1960s, Japan experienced serious river pollution, but there are no reported cases today of human health being damaged by river pollution. However, water purification is not at an advanced level; the take-up rate for sewage treatment is only 45%, and although pollution control for lakes began in 1984, the situation is still deteriorating. Due to the number of land reclamation projects, only 40% of Japan's natural coasts remains, and in the Bays of Tokyo and Osaka in particular, most of the natural coastline has been reclaimed.

Land pollution

Contamination of agricultural soil by mining waste occurred as early as before the War. Since then, and as a consequence of Itai-Itai Disease, Japan has begun taking countermeasures as regards the protection of agricultural soil quality, starting in 1972. In 1975, it was determined that polluters disposing of industrial waste should pay some of its treatment costs. In the case of urban soil pollution, where there are no laws for its protection, measures have only been taken in a few areas, such as the Tokyo Metropolitan Area and the Kanagawa Prefecture. In 1996, the Commission of the Environmental Protection Agency will consider a system by which polluters are required to pay soil treatment costs. In contrast, a Soil Conservation Act has been in force in Germany since 1993.

Waste and Recycling

The Japanese government enacted the Cleaning Act in 1958 and the Waste Disposal Act in 1970. Under the Waste Disposal Act, all waste except radioactive waste is under the supervision of the government. Nonetheless, this act did not take into account the importance of reducing waste volumes and reusing or recycling waste, as a result of which, Japan continued to produce 50 Mt (1 kg per year per person) of domestic and 330 Mt of industrial waste annually. The difficulties in treating such large volumes of waste led the government to consider recycling, and in 1992, the Waste Disposal Act was revised, while at the same time, the

government instituted the Recycling Act, which sets standards for recycling and acts as a guide for the retailers and manufacturers concerned. At present, recycling rates in Japan are 50% for paper, 43% for aluminium cans and 49% for glass bottles.

Waste recycling is more advanced in Germany than in Japan. Influenced by the Packagings Ordinance, Japan enacted an act with a similar purpose in 1995. Nevertheless, the Japanese act places responsibility for waste disposal firmly with local governments, and the responsibility assumed by corporations is less than that in Germany.

In Japan, the low price of raw materials makes it difficult to promote recycling in a market economy. For example, raw materials such as wood pulp and glass are so cheap that further increases in paper and glass recycling are not to be expected. Although the government has begun promoting recycling through the provision of subsidies, the cost is proving too high.

Environmental Assessment System

In Germany, the Environmental Impact Assessment (EIA) Act came into force in February 1990, putting a 1985 EC Directive into German law. In Japan, the Environmental Impact Assessment Act has not yet become law, due to opposition from industry and ministries such as the Ministry of International Trade and Industry, the Ministry of Transport and the Ministry of Construction, and despite more than 6 attempts since 1976 to submit the bill to the Diet. Even in the Environmental Basic Law, there are no clear provisions on EIA. Nonetheless, due to the environmental disturbance brought about by large-scale projects and increasingly strong public opinion demanding EIAs, the government has been implementing assessments of public works since 1972. In 1985, a cabinet decision on EIA for projects with government involvement was issued. Between then and the end of 1991, 285 EIAs have been carried out, of which 80% concerned road building. However, none of the projects was suspended or modified in the light of the assessments.

In Japan, EIA is required only for public works, whereas projects requiring EIA in the EU include oil refineries, power stations, radioactive waste treatment plants, steel works, chemicals plants and waste treatment facilities, none of which is subject to EIA in Japan. In Germany, even projects like sewage treatment plants, dams, dykes, mining projects, trams, holiday facilities and large hotels are also subject to EIA, and many more projects are given EIA in Germany than in Japan.

As to the procedure itself, it is the contractor for a project who is obliged to carry out an EIA in both countries, and obtain permission from the competent authorities, although in Japan, the competent authority seldom asks for the opinions of other authorities, while in Germany, a wide range of opinions is requested.

Japanese EIA is a matter only of administrative guidelines, and is not law. There has been no case where a project has been cancelled, or where residents' opinions have been adopted after an EIA. In the case mentioned above, where the Mishima-Numazu industrial complex project was cancelled in 1964, it was a residents' movement, not EIA by the government, which led to the cancellation.

Environmental Policy and Economic Instruments

Environmental policies are implemented through direct control and through economic instruments. More attention has been paid recently to economic instruments. Comparing economic instruments, in particular charge systems, Japan is ahead of Germany in air quality measures, while the situation is reversed as regards systems of water charges.

As mentioned above, the Pollution Victim Compensation System in Japan levies a charge on polluters, according to the amount of SO_x they emit. At its peak, the revenue raised by this charge reached 80 billion yen. In addition, a proportion of automobile taxation revenue was incorporated into the compensation system, amounting to 20 billion yen at its peak. Although the government discontinued the designation of pollution victims in February 1988, the victims already designated can continue claiming compensation, so long as their symptoms persist.

Charges are levied on waste in Germany, while domestic waste in Japan is subject to a charge in only relatively few areas.

Neither in Japan nor in Germany has the government introduced environmental taxes such as a carbon tax or environmental energy tax, as have already been introduced in some North European countries. The Japanese government has currently organised a research committee on the issue. The Japanese oil and paper industries are strongly opposed to the introduction of environmental taxation, although it is crucial not only to introduce carbon and other energy taxes, but also to carry out an ecological tax reform across the entire tax system. However, introducing new taxes will not be easy during economic recession.

4.9. Latvia

Valdis Seglins

As was pointed out by Dr. Weidner, the outcome of environmental policy is a result of a complex interaction between the political, administrative, judicial, economic, social and ideological factors and structures which shape the approach to making and implementing policy, in short: policy style.

Latvia is currently going through a period of transition, some might say transformation, from an authoritarian regime and centralised planning to an open society and a free market economy. Applying the aforementioned policy style indicators in a wider context - as indicators of both policy and society - Latvian society can be seen to exhibit typical characteristics of a diffuse, multi-cultural, politically immature society, without firmly established major political themes or priorities. The drastic increase in the economic problems of day-to-day life and the constant uncertainty that this brings with it go a long way to explain the absence of, and difficulty in developing, coherent sets of values within a passive and diffuse society that has no discernible interest or target groups at grassroots level.

If conservationist and environmentalist values were the main issues around which the concept of nationhood developed at the very beginning of the independence movement (in the latter half of the 1980s) and during the "Velvet Revolution", these issues are to be found today in the back yard of politics and daily life in Latvia.

The political parties and emerging political groups are only setting out along the road of clarifying and defining their programmes and of making realistic plans.

A functional modern legal and electoral system, complemented by NGOs and interest groups, is a long way from being established within the existing system. Limited influence from the scientific community and trades unions can be made out, but the most active player in formal environmental protection is the Ministry for Environmental Protection and Regional Development, a remnant of the former system which has dominated local policy style, continuing to exert direct administrative control through the use of fines. There is no role for regional and local environmental protection authorities in finding partners for cooperation and development, or in building and strengthening links with them. The ministry has a very limited capacity for promoting public awareness of problems (there has been no relevant public information on environmental conditions since 1992), little economic capacity (the ministry's budget is generally cut three times a year), few possibilities for political integration (the minister of the environment and the minister of state belong to minority parliamentary parties with no fixed political goals in their environmental programmes), little capacity for innovation (it has no incentive to give up its direct administrative powers), and the low strategic capability of the government, the latter being probably most significant for Latvia. At the same time, the ministry is open to influence from abroad: a number of international environmental agreements and conventions have been signed or are in the process of being ratified. The ministry is involved in around a hundred international aid projects in the area of environmental protection, including institution building.

The general reform of the State, initiated at the start of 1993, has now been halted, due to a lack of resources and of the human capacity and training necessary for its implementation at the centre. It will take decades and a generational change for a modern state, local administrations and a modern environmental policy to develop. The most recent national environmental policy plan for Latvia (1995) may be used here as an example: the proposed plan is fairly modern, and corresponds to the best in current European environmental policy; the only differences are to be found concerning the methods of implementation and resources - they are not defined. It seems that the foundation stone has been laid, but that Latvian environmental policy is still very much under construction.

The second aspect, measurable results of current environmental policy, can be termed a success story if one looks only at the bare statistics: per capita water consumption (better than WHO recommendations), air and water quality (better than in EU countries), etc. However, if the very low per capita GDP is taken into account and correlated with emissions and consumption of resources, the average figures for pollution flow and resource consumption in post-independence Latvia are 25-30 times higher than the averages for EU countries, even more, if rises in emission levels per unit growth in GDP for this period are compared. This means that during the last 5 years, the reduction in pollution levels measured has been achieved solely through a reduction in GDP, an absolute reduction in production and service delivery without any structural change. This is an extremely important point of comparison between German and Latvian environmental policy: German policy is based on structural change and prevention, which ties in with the above, as they both presuppose the broad use of a number of legal and political instruments, as well as the government's high strategic capability and the presence of cooperative partners in policy implementation.

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4.10. The Netherlands

Hans Bressers

Both Germany and the Netherlands are regarded in the international arena as "front runners" in environmental policy-making. For both countries, the external perception of their environmental record is a matter of internal dispute. Although admired by outsiders, their environmental policies are considered at home to be vulnerable to the risk that necessary change come to a standstill half-way along the road.

The root causes of this situation are somewhat similar in both countries. The development of both environmental policies shares a common background: heavy pressure for solutions to environmental problems, due to the high concentration of domestic economic activity and prosperity, and the corresponding economic capacity to develop a substantive policy response to these problems. At the beginning of the 1970s, both countries were quick to set up regulatory structures, predominantly based on licensing systems, as the core regulatory instrument. In both cases, implementation issues were not dealt with at all adequately, resulting in the notorious 'implementation deficit' (*Vollzugsdefizit*) in Germany, and the disturbingly consistent results of numerous Dutch evaluation studies, which have described the effects of environmental policy as marginal or - even more damningly - as "the side-effects of what is essentially a legislative tokenism" (Aalders, 1984).

The responses of the two countries to this crisis in environmental policy did nonetheless differ from one another. The processes described by Weidner flow logically from his assessment of German policy's capacity for integration, innovation and forming strategic alliances. A new *contrat social* more or less integrated environmental protection into the German system of government. This development was to a large extent a result of the high level of public awareness, which made itself felt in electoral pressure from the emerging Green Party (*Die Grünen*), and occurred despite the "extreme inertia of the neo-corporatist power cartel" which had been in evidence up to then. The judicial system also acted from time to time as an engine of change.

In the Netherlands, the incorporation of environmentalist values into the system of government took a different course. The newly established government agencies and environmental administrators at national, and sometimes also provincial level saw the environmentalist movement as a

natural ally in their struggles with industry and with government agencies who had other interests to defend than environmental quality. For Dutch environmentalists this meant not only easy access to policy formulation, but also, until recently, the generation of substantial funding towards enhancing their level of expertise - "arming your ally". On the other hand, in the beginning of the 1980s, amid the first signs that environmental policy was not living up to expectations, both environmentalists and environmental agencies found themselves on one side of a gulf separating them from the 'economic' sector networks of governments and businesses where the most crucial decisions were being made. Furthermore, the economic depression of the early 1980s weakened their position *vis à vis* these networks.

It was under such conditions that the then minister for the environment, Winsemius, tried, more or less successfully, to bridge the gulf. He countered the tendency within his own ministry to regard industry as the enemy, started talks with representatives of businesses and initiated combined working groups between his and other ministries. A first policy result was the adoption of a programme to cut back gradually (but in the longer run quite drastically) the number of firms that had to apply for an environmental permit. For several branches of industry with typically only a minor or moderate environmental impact, individual permits were replaced with general standards, which led to a decrease in procedural costs for both governments and business. Moreover, regulations for these branches were drawn up in full and often close cooperation with the organisations within each branch. Even before the Brundtland report, "Our Common Future", was published, Winsemius and his successor Nijpels had started to negotiate 'covenants' with branches of industry, often from a rather weak negotiating position (Klok, 1989). All in all, environmental policy became 'socially acceptable' during these years, and public respect for the Ministry for the Environment and Mr. Winsemius soared. And so, although superficially at least, developments in Germany and the Netherlands had been fairly similar up to that point, the underlying network(s) of relationships had developed quite differently.

In the second half of the 1980s it became apparent that far more ambitious environmental targets had to be set than previously, in order to protect the environment in the longer term. By then it had also become widely recognised that current policy instruments functioned quite inadequately. Combined, these observations led to a conclusion that environmental policy as it stood could well be regarded as 'bankrupt'. The first national environmental plan set new goals and started a significant 'bandwagon effect'. For any Dutch politician or even business-man at the time it was positively *Not the Done Thing* not to adhere to it. All potentially affected ministers signed up to it. Groups of critical scientists, though, reminded them in open letters that the issues of instruments and implementation had not been resolved. An addition to the plan in 1990 addressed these issues specifically. It placed emphasis on intersectoral and intra-hierarchical cooperation from (parts of) government. As for the polluters, two new directions were charted in addition to the direct regulatory approach: further economic instruments and more efforts to stimulate self-regulation within industry.

The development of new economic instruments has remained somewhat stuck in the mud since then. A simple explanation is that in the years before, no structural basis for these instruments (institutions, networking relationships, etc.) had been developed. So the full momentum of the new environmental policy's legitimisation was directed towards the promotion of self-regulation: consultation with the target groups, covenants with branch organisations, environmental management systems, etc. The logic of this development can be seen directly from the development of network relationships in the preceding decade (Bressers, 1995). It differs from German

developments in the same area in that the emphasis in Germany was far more on legal obligations and liabilities as a way of increasing the extent of self-regulation. As far as the target groups are concerned, national consultation is lacking in Germany. These differences are also understandable from the perspective of the policy context and its development as described by Weidner.

Although the potential and advantages of Dutch environmental policy are widely acknowledged, and have even inspired environmental policy at EU level, such an approach requires delicate handling, because consultation can only succeed when the achievement of environmental objectives is ultimately perceived by all parties to be 'inevitable', and this can only be realised under conditions of sufficient social and political pressure (Bressers, 1994). In other words: relying too heavily on these policies makes their chances of success highly vulnerable. Sooner or later, the institutionalisation of self-regulation becomes essential. And so, understandable as the differences in policy development between Germany and the Netherlands may be, in view of their governmental structures and the network relationships between governments, industry and environmentalists, it is equally clear that the environmental policies of both countries could learn a lot by taking a leaf out of each other's book.

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4.11. Spain

Susana Aguilar

The most striking difference between Germany and Spain, as regards environmental policy in general, is that in the former, the environment has been an established policy area for 25 years, whereas Spanish environmental policy is still in its infancy. That it is still in very much an embryonic stage is exemplified by the fact that Spain is the only European Union (EU) state without a ministry for the environment - only in 1993 did the government make a gesture in this direction, adding the word "Environment" to the title of what is now the "Ministry of Public Works, Transport and the Environment". However, the leader of the new right-wing government of the Popular Party (PP), José María Aznar, did announce during the election campaign that he would set up a ministry for environmental affairs if his party came to power in 1996.

One of the consequences of the low importance attached to environmental protection within the administrative structure is that the results of policy have been, hardly surprisingly, disappointing. The main success story in environmental policy has been the reduction of industrial

air pollution (mainly SO₂) in some highly polluted cities, as a result of the 1972 Air Protection Law. Apart from that, the situation with regard to air and noise pollution from traffic, river and coastal pollution (from domestic, agricultural and industrial waste), waste management and forest and soil conservation has not improved, and has even deteriorated in some cases. An increase in the number of protected natural areas is one of the few changes which merit any recognition.

Another notable difference between the two countries is that current environmental policy in Germany was initiated by a forward-looking, pro-active coalition government (SPD-FDP), which was in some respects ahead of its time. In contrast to this, the Spanish government - essentially the Socialist Party (PSOE), in office from 1982 to 1996 - played down the importance of environmental issues, defending the view that the conservationist agenda can only be addressed when the country's economy has attained a level comparable to that of its European counterparts. One can assume that the then government would have maintained this stance until it felt itself put under pressure from society to act differently. The problem is that environmental awareness within Spanish society is at a relatively low level, when compared with the European average, and that Spaniards are unlikely to change their ideas radically in the medium-term. Moreover, the environmental movement in Spain is not as strong as that in Germany; one of the few things which they have in common with one another is their similar origins, since both are offshoots of the campaign against nuclear energy.

The combination of a low level of environmental awareness within society and a weak ecological movement would appear to account for the lack of pressure exerted upon politicians to assume a more conservationist stance. Consequently, even after the election victory of the PP in 1996, a similarly weak environmental policy is bound to continue.

One factor which draws the two countries closer in respect of environmental policy is that they have in common a federal structure, with its associated problems, such as blurred delineation of areas of responsibility, and insufficient coordination between different political and administrative levels. Yet Germany has developed a sophisticated and complex system for coordinating institutions, a development which is still at a rather immature stage in Spain. In addition, the decentralised features of these states seem to have evolved along quite different lines: in Germany, the central government has gradually taken on board more and more environmental responsibility, whereas in Spain, the regions (*comunidades autónomas*) have become the principal actors in this policy area. Of course the two developments also started from different points, since the German constitution awards legislative power to the *Länder*, a power reserved in Spain by the state. Despite these differences, the regions of these two countries have been systematically working for greater recognition at EU level, they have also promoted a "decentralised federal" interpretation of the principle of subsidiarity (in contrast to the "renationalising" interpretation propounded by Great Britain), as well as a strengthening of the Committee of the Regions.

As regards policy style, the two countries are both gradually becoming aware of the need for social partnership in the implementation of a sensible environmental policy. In Germany, the environmental movement is becoming increasingly incorporated into the sphere of decision-making, while the arena of policy-making is being made more open to actors other than government and industry. For its part, Spanish environmental policy has seen voluntary agreements being entered into between government and certain economic associations, as well as some legislative changes which provide more room for participation by interest groups from within

Spanish society. This cooperative stance by the former government, however, remained half-hearted, and it adopted most environmental decisions without a genuine consultation of interested groups. The still very much peripheral involvement of these groups in environmental policy-making might explain Greenpeace's decision to walk out of the recently created National Environmental Council. This group has alleged that debates within, and decisions agreed on by this advisory body have not been taken into account by policy-makers.

And finally, the roles of Germany and Spain in the international arena, more specifically at EU level, point to the most significant differences regarding environmental policy. The ground-breaking stance of Germany in European environmental policy, above all in the fields of air quality and the regulation of chemicals use, is strikingly different to the more passive attitude and laggardly approach of Spanish governments. Symptomatic was the insufficient attention paid by the first Spanish presidency of the EU to environmental issues in general, and even to those problems (such as soil erosion and forest fires) which were and still are exerting a harmful effect on the Spanish environment. Nevertheless, Spain has been very active in respect of one specific issue: the creation of financial instruments for environmental protection. The approval of the Cohesion Fund at the Maastricht summit would therefore represent the biggest success in its campaign.

4.12. Switzerland

Peter Knoepfel

1. *Some similarities between Swiss and German environmental politics*

Their geographical position as neighbour states, close cultural and economic ties, as well as the similarities in legal and economic regulations and in the sets of values applied to environmental policy are all in part responsible for the similar courses taken by Swiss and German environmental politics in many respects over the last 25 years. Parallels can be observed in the following areas:

- *The level of legal protection for the environment.*

In both countries, most standards for immissions, emissions and products in the classical environmental policy areas (water and air quality, noise, chemicals or soil conservation) make heavy demands in terms of legally required protection. The more strongly eco-centric overall orientation of Swiss environmental politics has nonetheless led to stricter requirements on immissions levels in some areas (air quality and soil conservation). The striking similarity in emissions level requirements can be traced back not least to the fact that the Swiss legislature (above all in the first draft legislation in the second half of the 1980s) oriented itself - often explicitly - around the *TA-Luft* technical guidelines for air quality in Germany.

- *Historical development*

Swiss environmental policy also grew out of public health policy at the end of the 1960s, and concentrated first on water quality. The present Federal Agency for Environment, Forestry and Countryside (*Bundesamt für Umwelt, Wald und Landschaft, BUWAL*) was established like its German counterpart in 1972, and its first acts concentrated also on air quality, noise pollution

and chemicals. Nature and countryside conservation belonged (until 1989) neither legally nor administratively to environmental protection; the same was and, in contrast to Germany, still is the case for nuclear safety. Swiss immissions policy from the 1970s and early 1980s is predominantly municipal or cantonal, as the drawing up of a federal law after the corresponding constitutional mandate (1972) took nearly 15 years (the federal law on environmental protection of 7th October 1983 came into force on 1st January 1985). The around 20 current directives based on this law come mostly from the second half of the 1980s.

● *Administrative structure*

Switzerland, like Germany, is a federal state, characterised by executive federalism; the concrete implementation of federal legislation is a matter for the member states (the cantons). A federal executive deals only with a few areas, in particular nuclear safety or chemicals law. To a lesser extent, the larger cities in Switzerland are also involved in concrete implementation, if the local cantonal law provides for this. Compared to the 16 German federal states, the 26 Swiss cantons are all very small; there are only a few cases where comparable intermediary levels exist between canton and local community within a district. Thus the weight of responsibility for implementing environmental policy in Switzerland lies with the cantonal administrations. As in the German *Länder*, these are, as regards environmental policy, often in more or less bitter conflict with the generally more progressive (often "red-green") authorities of the larger cities. Such conflicts typically crystallise around measures to restrict the use of personal transport by the centres of larger agglomerations, which have a negative effect on the traffic situation in the environmentally less sensitive surrounding communities.

● *Importance of the international level*

Until the early 1990s, Switzerland played an active and progressive role in the further development of international environmental law (air quality, nature conservation and sustainability). In this, she often stood side by side with her somewhat more influential northern neighbours, as a member of the group demanding, with varying degrees of success, stricter environmental quality standards. Conversely, major international events (Seveso, Bhopal, Chernobyl, Amoco-Cadiz, but also Schweizerhalle) and conventions (on air quality, sustainability, protection of the North Sea) played a significant role in Swiss environmental policy.

● *Environmental capacity*

There are many comparable elements to be found in the administrative and social environmental actors, their knowledge and financial resources, but also their cooperation with one another through all kinds of horizontal and vertical networks, all of which have become established in both countries over the last 25 years. The phases in the shifts of emphasis placed on environmental policy areas (from policy oriented around immissions to one based on emissions, then on prevention and finally on resources) also show a similar general course of development. "Green" business has also reached thoroughly comparable levels of development in both countries, while there is an equally comparable hesitancy in moving into the use of economic instruments (on waste policy, air quality and clean-up).

● *Success*

Successful implementation concerning air quality (with the exceptions of NO_x, VOC and ozone), water purification (95% of users are now connected) and chemicals must be set, to the

same extent as in Germany, against less successful attempts as regards nature conservation, planning, soil conservation, ground water, noise and disused landfills. In these respects, there is much that is comparable in the success rates of both countries. On both sides of the Rhine, water conservation policies operate through subsidies, while in the - most extensively regulatory - air quality policies, the Polluter Pays Principle is most effective.

2. *Five striking differences*

2.1 *The structure of the problems*

Switzerland has virtually no basic materials industry and only a small heavy industrial sector. Seriously environmentally harmful mining activities are as uncommon as large thermic power stations (main primary energy production is nuclear and hydroelectric). In addition, Switzerland has no domestic automobile industry. The main activities of the raw material-intensive industries (chemicals, engineering, food, and earlier, textiles) constitute energy-intensive refinement involving a high level of expertise. The industrial and trading sector, predominantly consisting of small to middle-sized businesses, has been contracting sharply for a long time (ca. 29% today), while the same applies to the primary sector (4% today). Against this, the service sector (traditionally stronger than in Germany) is still expanding (67% in 1996). The medium altitude areas of Switzerland are among the most densely populated in Europe; interference between different land uses and land use conflicts are very common here. On the other hand, more than half of Switzerland lies in the Alps, which is the reason for Switzerland's development of considerably more prominent mountain-specific nature and countryside conservation policies than those in Germany. Moreover, Switzerland is a typical transit land (on the North-South axis).

And so these economic and geographical characteristics explain some differences between the environmental policies of Switzerland and Germany. The most important of these are:

- an overall closer attention to space, and a greater differentiation between kinds of space;
- the greater value placed on nature and countryside conservation, as well as (more recently) on biodiversity policies, notably as regards flowing and standing water ("quantitative water conservation")
- the presumably greater importance of noise pollution policy (notably in medium altitude areas)
- the greater significance of traffic-related environmental problems, and the lesser importance of problems caused by industry and trade (air quality, noise pollution and land consumption, as much in the conurbations as in the Alps);
- the greater traditional importance of materials and energy conservation which is typical for a country poor in raw materials;
- the wide regional and sectoral variability in implementation policies, as well as the differences between the language areas which, as a result of the comparatively high number of smaller polluters, is more heavily dependent on cooperation and voluntary measures from

the objects of implementation as in the German *Länder* or France, which have comparatively many large firms.

2.2 *The cantonal kitchen*

Although Swiss environmental law and its directives can be viewed in Swiss terms as a relatively detailed federal law, there can be no doubt that the room for manoeuvre for cantonal implementation policy is both legally and practically some way larger than that for the German *Länder*. Thus within the framework of the introductory act, the cantons are able to lay down additional material protection requirements to those laid down in federal law (for example stricter emissions standards or extraordinary regulations for residual water in mountain streams). Like the German *Länder*, they have a more or less free hand as regards assigning competencies for implementation within the administration, although they have nonetheless more freedom to choose the actual administrative structures (for example concerning the classification of authorities, professional requirements and terms of employment) than their German counterparts. Furthermore, there is in practice some variability in the degree of involvement by semi-state or private interest groups (e.g. chambers of agriculture) or by environmental organisations, and in the extent of participation by parliaments or the public in these policy implementations.

These institutional framework conditions have resulted in 26 different implementation policies, in which considerable differences in both the speed and extent of the implementation of federal law can be found. Such variability is in principle the direct consequence of implementational federalism, which is generally viewed as constituting the cantons' technical *and* political responsibility for implementation. This has resulted in the well-known "kitchen of the cantons" where highly innovative achievements in implementation in one canton co-exist with universally acknowledged implementation deficits in another. The German maxim of "equal living conditions" (*Wertgleichheit der Lebensverhältnisse*) which applies in respect to implementation, has no traditional counterpart in Switzerland. Direct federal intervention to harmonise implementation, but presumably also secondary, horizontal harmonising mechanisms between the cantons are here a less marked feature than in Germany.

This finding, which is valid for most federal policies in Switzerland, can be traced back to, among other things, the fact that Switzerland has no institution with a comparable function to that of the German *Bundesrat* (the federal Upper House), in which the interests of the executive are directly represented, or even where administrative regulations are approved. The instrument of the federal administrative regulation is in any case an uncommon sight in the Swiss legal countryside; here, use is made of broadly binding federal directives, but also of legal guidelines, which constitute mere recommendations to the cantons. None of the federal directives can show as much regulatory density as the German technical guidelines on air quality, waste or noise (*TA-Luft*, *TA-Abfall*, *TA-Lärm*). Swiss political and administrative culture, in the absence of a general clause like the GG Art. 19, Section 4, demonstrates a considerably lower value placed on the administrative courts; the involvement of the federal (administrative) courts, which harmonise practice in implementation, in the day to day workings of the political and administrative system is also still, despite an upward trend, considerably slighter than in Germany. Political legitimation through elected local and cantonal authorities which, particularly as regards the environment, tend to hold widely differing sets of values, is still held to be more important in Switzerland than legitimation by federal law. This constitutes an essential difference to the German case.

2.3 *Switzerland: non-member of the European Union*

Until the early 1990s in any case, Switzerland "went it alone" on the environment in many respects, formulating stricter requirements for protection than in the EC states (e.g. an earlier application of US automobile exhaust standards, resulting in catalytic converters and lead-free petrol becoming obligatory in practice; stricter immissions and emissions standards in air and water quality and in part stricter regulations on noise pollution for motor vehicles). Since the bilateral negotiations between Switzerland and the EU, which became necessary as a result of the rejection in a referendum on 6th December 1992 of joining the European Economic Area (EEA), it is true to say that Swiss environmental law must in principle be "euro-compatible"; new Swiss legislation in the areas harmonised with European Community legislation must therefore where possible correspond to community law. This is particularly the case for new product standards in Swiss materials directives on usage, where there had earlier often been confrontation between the environmental and foreign affairs federal ministries. The increasingly intensive contacts to the EU have therefore strengthened what was earlier (not least due to the aforementioned differences in implementation among the cantons) a less developed sense of the competitive components of legal environmental standards. These problems must now be faced by many a Swiss company if, for example, it wants a European product label or a certification according to the EMAS guidelines. These two EU decrees have made the connection between public and environmental policy all too clear to environmentally conscious Swiss companies; Switzerland's non-membership of the EU thus tends to be, at a business level, not only economically, but also environmentally a restricting factor.

Thanks to non-membership of the EU, environmental policy in Switzerland was on the other hand probably better able to win out over agricultural policy than in Germany. A third of the direct payments to Swiss farmers, introduced in 1992 under the World Trade Organisation agreements to do away with product subsidies, are already linked to environmental preconditions; a change to the constitution, approved by the people and the cantons in Spring 1996, asks that, in the next millenium, such payments only be made to those farmers who commit themselves to environmentally friendly "integrated production" or to organic farming. More or less overnight, the entire - autonomous - Swiss agricultural polity was thereby forced to switch onto an environmental track. Something similar occurred in February 1994 when, against expectation, the people and the cantons forced a re-orientation of Alpine traffic policy, which incidentally could be harmonised with the 1991 transit agreement with the EU only by "interpretative" means, and through legislative accommodations.

2.4 *The environmental organisations' right of action*

The 1983 Swiss Environment Act reaffirmed the right of action for panhelvetic environmental organisations (as well as that of the communes) which had obtained since 1966 in the Nature and Countryside Preservation Act; despite political attacks from business associations, this provision also survived (in a slightly modified form) the most recent revision of the Environment Act in December 1995. According to this provision, environmental organisations (and communes) which participated - protested - at an administrative procedure at the first instance have a right to action against the licensing of plants requiring an environmental impact assessment (EIA). This arrangement, which is provided for in Germany at the level of individual *Länder*, but not at federal level, has proved itself to be a dialogue-promoting instrument *par excellence*. The high success rate of cases brought has now led to environmental organisations automatically being included in the planning processes of large-scale projects from the very start. In

all aspects of the EIA, a culture of dialogue has developed, which in many cases has led to considerable ecological improvements in environmentally damaging large-scale projects, or even to their being abandoned altogether. The Swiss environmental organisations, whose membership figures are proportionally higher than those in Germany (0.5 million membership out of a population of ca. 7 million), have thus become indispensable correspondents in any successful planning process. They too now prefer negotiated solutions to bringing a conflict before the courts; the culture of dialogue supported by the Swiss tradition of orientation towards consensus in day-to-day politics is producing its own mediation mechanisms, without the need for formal mediation procedures.

2.5 The high status of referenda

What can often scarcely be brought about by even a change of government in German environmental policy is achieved in Switzerland, at both cantonal and federal level, by petitions and referenda opposing large-scale projects. Direct democratic pressure forced the government to give moorlands an absolutely protected status in December 1987, to place a moratorium on nuclear energy in September 1990 or in February 1994 to restrict drastically the volume of transalpine motorised traffic. In May 1995, the people, through their rejection of two agricultural proposals, put the final nail in the coffin of an agriculture policy seen to be environmentally damaging. The seal was put upon this decision by the adoption by the people and the cantons of a new, environmentally oriented contract for the (subsidised) agricultural community. In numerous cantonal and communal referenda in recent years, a large number of advances in environmental policy have been approved, for example in public and personal transport, and in waste and energy management

Even though some environmental policy initiatives, which are viewed as too extreme, are also rejected hereby, it is in my opinion undeniable that the instruments of petitions and administrative referenda against large-scale projects have had overall a positive and innovatory effect on Swiss environmental politics. The petitioners have mostly succeeded in bringing burning environmental issues (often against the will of parliament and government) to the fore, and in bringing the authorities to at least make an alternative proposal taking account of some of the interests of the petitioners.

3. Some concluding impressions

As a long-time observer of German and Swiss environmental politics I would like to conclude with a somewhat impressionistic summary. In comparison to German environmental policy, the Swiss variety is richer in aspect, more flexible and innovative in implementation and, in its relationship to other policy areas affecting the environment, more strongly oriented towards negotiation and consensus and simultaneously more demanding. Moreover, its implementation is more context sensitive, in the sense that it is more closely woven into the various policies of the diverse cantonal and communal administrative areas than its implementation in Germany. It thus becomes also less uniform, and at least in its implementation, less coherent than in Germany.

On the other hand, German environmental policy, when compared to its Swiss counterpart, is characterised by a more dense centralised set of standards, closer reliance on legal regulation and greater responsibility for the courts, as well as more conflict in its implementation. It is probably more coherent, more uniform and more consistent in its implementation as well. In addition, it is more firmly anchored in the constitution and less subject to local political constellations, more consistently based on sectors and, as regards other environmentally significant

public policy areas, simultaneously more aggressive and less influential. It runs closer to the demands of economic policy inasmuch as it is more predictable in its execution, progresses along a broader front, achieves a more widespread uniformity and remains truer to basic principles. Conversely, it does less for the demands of "Deutschland GmbH" (*Wirtschaftsstandort Deutschland*) inasmuch as it still demonstrates - in comparison to Switzerland - a high level of formalisation, and thereby a certain rigidity.

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4.13. USA

Susan Rose-Ackerman

Dr. Weidner's thoughtful and comprehensive review is a useful guide to environmental policy-making in Germany. It is an insightful effort to link the substantive policy debate with the legal and constitutional structure of the German state. Weidner rightly places considerable emphasis on the nature of the federal system, and its "bureaucratic, highly legalistic policy style."

Although I am in fundamental agreement with most of Weidner's arguments, there are several places where I would put the emphasis differently or would make somewhat contrary recommendations. The issues I want to raise concern the meaning of "participation", the nature of economically efficient reforms, the role of the courts, and the value of civil liability as a method of pollution control.

First of all I am, like Dr. Weidner, concerned about the reduction in public participation rights incorporated in the laws designed to speed up the planning process for highways and other projects. We need, however, to be clear about what types of public participation can be most useful and effective. Germany has been no more successful than the United States in using participatory processes to reach consensual decisions. In the environmental area, mediated or consensual decisions should be limited to the narrow range of decisions where a small number of people can represent the entire range of affected interests, and where there are mutually beneficial outcomes available (*Rose-Ackerman, Susan. 1995: Controlling Environmental Policy: the Limits of Public Law in Germany and the United States, New Haven: Yale University Press, pp. 102-106*). Many environmental issues do not have this character. For most air and water pollution problems, for example, diffuse interests, such as breathers and water drinkers, are unorganised.

According to Weidner, German environmental groups are becoming increasingly better organised and well-informed. The government should hear their opinions and take their opinions into account, but should not assume that they represent ordinary citizens. For national regulatory issues, the government should establish open and transparent processes that provide a hearing to all those with expertise and an interest in the issue, but should retain the authority to issue regulations itself, accompanied by a statement of reasons. The informal rule-making provisions

of the United States Administrative Procedures Act provides an example of one way to achieve this goal (*ibid.*, pp. 14-15, 126-127). Although German rule-making authorities do generally consult with a wide range of interests, the process lacks the openness needed to allow outsiders to judge the results (*ibid.*, pp. 57-71). Thus for me, the highest procedural priority for Germany is a regulatory system which assures a broad range of meaningful participation, while retaining governmental authority to issue rules and guidelines. Even for the narrowly focused projects such as hazardous waste sites or highway routes, consensus may be a dream, but greater and better organised participation can nevertheless be encouraged, even for decisions that ultimately remain the province of the bureaucracy.

Secondly, in discussing the reform of existing statutes, Weidner and others criticise the German law's excessive reliance on licenses and command-and-control in general. To an economist like myself, the regulatory system appears the result of lawyers' and engineers' fascination with norms. This is a criticism that can also be levelled against United States policy, in spite of the recent experiment with tradable pollution rights under the 1990 Clean Air Act (*ibid.*, pp. 22-31). In discussing ways to improve the efficiency of environmental policy, however, it is important to distinguish between two types of reform. In the one hand, reforms may streamline bureaucratic activities by eliminating overlaps and unnecessary layers of approval. Regulations that serve no environmental function should be repealed. On the other hand, programmes that have a sound justification can be made more cost-effective through the use of market-like instruments. Here the aim is not to improve the performance of the bureaucracy, but to replace administrative decisions with ones based on incentives. The practical design of effluent charge and tradable rights systems is in its infancy. More experiments need to be carried out in both countries to test schemes that have been part of the economists' recommended tool kit since the mid-1960s (*ibid.*, pp. 18-20).

Thirdly, Weidner is more cautious than I would be about expanding the role of the courts in the environmental field. Although I agree with Weidner that the courts should not make substantive policy choices, I believe that the German administrative courts can play a restrictive, but nevertheless important new role. If the administrative law system were reformed along the lines suggested above, to increase participation, transparency and accountability, then the administrative courts should help assure that the federal and state ministries actually carry out their new responsibilities competently. Thus interest groups - from the environmental movement, from industry, from labour, etc. - should be able to bring cases challenging the ministries' compliance with the required procedures. Such cases would contrast with the individual rights focus of German administrative law (*ibid.*, pp. 72-81, 87-91). They would instead be brought to assure the democratic legitimacy of the administrative process. The courts would monitor administrative practice without second-guessing the government's substantive policy choices. In the United States, the federal courts perform a similar oversight function, although it is currently under attack from some of the more conservative members of the Supreme Court (*ibid.*, pp. 15-16, 134-137).

Fourthly, Germany recently reformed its Environmental Liability Law to make it a more effective deterrent to polluters. Even with these changes, however, it remains a relatively weak tool, that has generated few lawsuits. Although I agree with Weidner that the changes have basically improved the law, I am doubtful that liability law ought to be a major method of controlling pollution. Many pollution problems cannot be characterised as the one-on-one disputes most suitable for resolution by the civil courts. Instead, in a typical case, thousands of people are harmed by a large number of dischargers. In the air pollution area, for example, one is seldom

able to trace one's harm back to a particular smoke stack. Not only are there many similar smoke stacks spread out over a large geographical area, but also pollution from one source may combine with pollution from another to generate harmful substances such as photochemical smog. The liability system is not well adapted to such problems, and most judges lack the scientific training needed to evaluate the evidence. Thus, although liability law in both the United States and Germany can be a useful tool for controlling narrowly confined problems that escape the reach of statutory public law, it should not be a major focus of reform efforts (*ibid.*, pp. 99-101).

In conclusion, I am grateful for the opportunity to contribute to the debate on environmental policy in a reunified Germany. Dr. Weidner's efforts should contribute to the ongoing interaction between researchers and policy-makers with similar interests on both sides of the Atlantic. Europe and the United States must balance economic growth against environmental protection in a political environment increasingly skeptical of bureaucracy and regulation. Although environmental protection sometimes gains all round, more common are the cases where overall beneficial policies produce winners and losers. In such cases, the state must both design cost-effective policies which minimise the losses, and establish decision-making procedures that are widely viewed as legitimate, even by those who do not prevail. Dr. Weidner's paper shows how looking at the successes and failures of the German experience can contribute to that effort.

4.14. Germany

Ernst Ulrich von Weizsäcker and Hans-Joachim Luhmann

(1) Introduction

Helmut Weidner has painted a picture. A picture of 25 years of environmental policy in Germany and of the institutions which implement it. This picture is his personal vision, and his field of vision is, for all the expertise of this writer, who has been a fellow traveller and analyst of environmental policy in Germany for 20 years, limited. We have taken his request for a "statement" from us on his text as an invitation to continue work on his picture. When the outline of a picture is there, and one likes, as we do, the painter's style and choice of subject, it is relatively easy to bring out much that is of importance with a few brushstrokes. And it is in this sense that we would like to fill out Weidner's picture. In this we can find next to nothing to add as regards the success story of German environmental policy - this aspect seems to have been dealt with more or less exhaustively by Weidner, as is only appropriate to his choice of title. The international society of nations, to whom this picture is addressed, can learn not only from the successes of German environmental policy, however, but surely also from its failures, and perhaps most of all from its failings. For this reason we would like now to take up three deficient areas which, as far as we can see, Weidner has either failed to deal with, or not dealt with in sufficient depth. These three areas are:

- structural organisation of environmental policy;
- public opinion as political power;
- priorities and organisation in environmental research policy.

(2) *Structural organisation of environmental policy*

As a start, it might be a good idea to divide up environmental policy areas according to the aspects of the environment which require protection. This is what has taken place in Germany since 1969. This categorisation is a natural consequence of the original - scientifically based - view of the problem. In this case, emphasis falls on the *environmental* in environmental policy, and the categories are defined according to the need to organise our *understanding* of the issues. The result is reminiscent of Aristotle's Theory of the Elements: a division into Water, Earth, Air - and only Energy is replaced by a special form of energy - Noise. A second step, and one which bears witness to a certain maturity in the politics of the environment, requires us to ask one day how well this form of categorisation in environmental politics is suited to its subject. Whether the very success of environmental policy has not made its own organisational criteria obsolete.

There is always the option of emphasising the *politics* in environmental politics. One could then divide environmental politics into (classical) areas of activity. The simple insight which leads us to propose this organisational structure is that pressure on environmental resources stems from human activity, which is as such already the subject of politics, and which should therefore become the subject of (corrective) environmental policy. Looked at from the point of view of taking action, this is the appropriate organisational structure, even though it could take all manner of forms in practice. A model for this type of organisational structure can be found in the departments of the Wuppertal Institute (Climate, Energy, Transport, Materials Flows), categories which appeared in "Crisis Areas" (*Krisenfelder*) in Weizsäcker's "Earth Politics" (*Erdpolitik*, 1994: Part II). In particular, however, it should be pointed out that the newly developed organisational structure implemented by the Federal Environmental Authority (*Umweltbundesamt*) in 1994 also follows the above-mentioned, action-based view of things.

(3) *Public opinion as political power*

We agree with Weidner's analysis insofar as we share his view that the role and potential of environmental policy is circumscribed by conflicting interests ("countervailing power"). We draw particular attention to his comment on the 90s: "Nevertheless, a massive backlash has not occurred up to now. This is due ... to the still high degree of environmental consciousness among the general public ... and many well-organised environmental protection organisations" (p. 2). We do this in order to point out that the power of "public awareness", like the power of environmental protection groups, is not a given, but is also the result of carefully targeted action in the field of environmental politics. Furthermore, we would like to point out that certain objects of environmental policy are less, but in some cases *more* affected by this circumscription than others. Thus the environment department of the federal home affairs ministry (*Umweltabteilung des Bundesministerium des Innern*) recognised very early on that the existence of environmental protection groups is necessary for a successful environmental policy, in order to counterbalance the lobbying power of employers' organisations. In view of this, it took the sensible step of giving financial encouragement to the establishment and maintenance of environmental groups. Besides this, the tax-free status of donations to environmental NGOs is of central importance, as the economic basis for the high public profile of environmental themes.

Various environmental themes, however, have varying power to strike a chord with the general public to which environmental groups address themselves. Typically, as the history of environmental protest and the environmental protection groups in Germany has taught us, more or less

only those environmental problems with a local relevance are debated with any urgency. A similar situation pertains in other fields, for example national security. The reason for this rests on the dynamics of the political system in a nation state and on market forces in the local media. And thus purely global environmental problems, such as climate change, for example, are particularly difficult for environmental pressure groups to take up and make a matter of public debate.

(4) *Priorities and organisation in environmental research policy*

For this reason special, appropriate measures are required, in order to keep *global* environmental themes alive in the minds of the public in the long term, i.e. to make them independent of shifting fashions within politics and the media. This task was recognised early on in Germany, and a persuasive solution, well worthy of imitation, found at an institutional level. The classical means of keeping an environmental problem alive is naturally environmental research. Its role, "on hearing the first alarm bells", is at first explicitly to build up a resource of relevant scientific expertise (Bauer 1990). This expertise plays only a very basic role in reporting by the media, but its importance should not be underestimated.

Considerably higher-profile committees on global environmental themes have been established in Germany with the institutionalisation of commissions within the body politic itself. In pursuit of this aim, the federal government created a special "Scientific Advisory Committee for Global Environmental Change" (*WBGU*), which is privileged to report, not simply to a department, but to the Chancellor, and thus to the entire government. This distinguishes it from the Council of Scientific Experts (*SRU* - cf. Weidner, p.32, 4[a]), which it is otherwise intended to complement, in that the *SRU* is constituted to concentrate on environmental problems in Germany. The Parliamentary Survey Commissions (*Enquete-Kommissionen*) have shown themselves to be particularly successful, both in creating public awareness and media interest, and in gearing the scientific debate towards our modern, media-based style of representative democracy (cf. Weidner, p.33, 4[e]). Contrary to Weidner, it is not a solely *scientific* advisory council to the parliament, but is filled half by scientists, and half by members of parliament, i.e. politicians. Its work partly takes the form of minuted public hearings, analogous to the work of a committee of the *Bundestag*, and partly of research trips by commission delegates. Furthermore, these commissions have, as a rule, the means to fund research. The experience up to now has been that this set-up regularly produces an initial publication, to which all further debates, whether about the nature of the problem or how to deal with it, refer.

4.15. Germany

Eckhard Reh binder

1. I agree with Weidner that German environmental policy is characterised by a bureaucratic, technological approach, particularly by narrow administrative regulation, orientation towards technological solutions and by a lack of flexibility, openness or public participation. That German environmental policy nonetheless scores highly in an international comparison may simply be due to the fact that in the land of the blind, the one-eyed man is king, but also that institutions are less significant than situational variables within the political process. Whatever the case, one can hardly explain away the bureaucratic and technological orientation of German environmental policy simply by referring to the traditional German

understanding of the State, that is, excessive regard for the State and disdain for society. The extent of legislative control, which distinguishes German environmental policy from that of nearly every comparable state (with the exception of the USA), is based partly on the demands of the economy itself, which insists on equal competitiveness, legal security and calculability of environmental demands, and seeks to accomplish this within Europe also. On the other hand, it must be borne in mind that, alongside a *primary* control through environmental legislation and the web of prescriptions and administrative guidelines, which Weidner emphasises, there is a significant *secondary* network of legal control, through court decisions and the dogma of environmental administrative law. Behind this stands the tradition of "the rule of law" in German administrative jurisprudence, which is no expression of excessive regard for the State, but seeks instead, and to an extent unknown in comparable states, to ward off infringements on liberty on the part of the State. That being said, it is certainly true that this consequent emphasis on protection, where the individual stands in relation to the State as a potential victim of infringements on his or her liberty, leaves little room for thought about his or her participatory rights as a citizen. This can be seen clearly enough in the legal discussion about public participation, and in particular the somewhat arrested development as regards participation in the formulation of political programmes and environmental standards (in contrast to local plans and decisions on isolated cases, which affect material legal protection rather than involvement in political decision-making).

If this assessment is correct, then the remedies put forward in the discussion on ways to overcome the participatory deficit, in particular the demand for the introduction of an environmental 'basic law' and an increase in class actions brought by private associations, are certainly somewhat problematical. These institutions are intended to contribute to a strengthening of participatory politics and regulatory innovation, but could instead act as the trigger for a further falling back on legislation. In this context, recent debate has rightly emphasised that such institutional changes, against the background of German administrative and procedural law, and in particular of the close scrutiny of decisions by the authorities, inevitably shift the political balance in favour of the administrative courts. This may well be acceptable, in the interests of environmental protection, but one cannot then complain in the same breath about excessive reliance on legal instruments.

2. Not everything put forward under the banner of flexibility, dynamism and innovation in German environmental law stands up to critical examination. Loss of the material and procedural legal protection associated with economic (taxation and certification) and more flexible instruments (agreements and undertakings, requirements on companies to make information available, as methods of voluntary, pro-active environmental protection), is less worrying, since the constitution is geared to protect against infringements on civil liberties. More worrying is the fact, in my opinion insufficiently considered in Weidner's account, that the modern debate on increasing the flexibility of environmental law is no longer conducted, as it was in the 80s, with the intention of making simultaneously concrete improvements and efficiency savings ("More environmental protection for less"), but with the goal of secretly dismantling the standard of protection offered by the courts, under the mantle of making this procedure faster and more flexible. Those who, like the Schlichter Commission, see environmental procedures primarily as a service offered by the State, which must be organised according to demand, overlook the State's function as protector in environmental politics. I see German environmental policy at present as having entered a period of regression, which could in the end have far more serious consequences than the period of stagnation which was introduced by the Gymnich talks in the middle 70s. Weidner emphasises the significance of

increased environmental consciousness, the influence of environmental "advocates", such as certain political parties, the environmental organisations and the media, as an external pressurising factor, and points out the increased environmental orientation of the economy and the unions. I see the environmental movement rather as weakened, in comparison to the 80s, since environmental themes have been taken up by every political party, and thereby vulgarised. The Green Party (*Die Grünen*), on the one side cut off from the grass roots environmental organisations, on the other transformed into a party for general protest and protection of minorities, has lost much of its environmental credibility and impact.

3. A clear shortcoming in German environmental policy, the insufficient environmental component in agricultural, energy, transport, planning and economic policy, is mentioned in passing by Weidner, but not actually analysed. These areas of policy are not just especially significant in respect of environmental policy, but also make it possible to define parameters for examining the effectiveness of environmental policy. It is obvious that the question of over-reliance on legal instruments plays a far less important role here than in environmental policy in general. Nonetheless, these specific areas of policy-making are found wanting in respect of the environment, which should indicate that falling back on the law could have less of a negative effect on effectiveness than simply on efficiency.

5. Notes on the Authors

Susana Aguilar-Fernandez, Dr. rer.pol., is a senior reader at the Complutense University in Madrid, and a member of the Juan March Institute. She has participated in various EU financed projects (Deciding on Waste Facilities Siting, 1993; Environmental Regulation and the Enterprise Sector in Eastern Europe, 1994; Grassroots Environmental Action and Sustainable Development in the Southern EC, 1995; Environmental Protection, Subsidiary Principle and Spatial Related Policies, 1996). Her most recent publications on environmental policy include: *Corporatist and Statist Designs in Environmental Policy: The Opposing Roles of Germany and Spain in the Community Scenario*, 1993; *The Greens in the 1993 Spanish General Election: A Chronicle of a Defeat Foretold*, 1994; *Spanish Pollution Control Policy and the Challenge of the European Union*, 1994; *Convergence in Environmental Policy? The Resilience of National Institutional Designs in Spain and Germany*, 1994; *Difference and Dynamics in European Union Environmental Policy*, 1995. Her doctoral thesis (*Políticas Medioambientales y Diseños Institucionales: la Comunidad Europea como Escenario de Negociación de una Nueva Política*) is to be published in 1997.

Mikael Skou Andersen is assistant professor at the Department of Political Science and the Centre for Social Science Research on the Environment (CESAM) at Aarhus University, Denmark. He is a member of the Expert Committee of the Nordic Council of Ministers' Environmental Research Programme, regular programme evaluator for the Danish National Agency for Environmental Protection and co-author of the recent report of the European Environment Agency on "The implementation of green taxes and charges". His recent publications on environmental policy include: *Governance by Green Taxes*, 1994; *Evaluating af indsatsen for renere teknologi 1987-1992*, 1995 (with Ulrik Jorgensen), *The innovation of EU environmental policy*, 1996 (co-edited with Duncan Liefferink); *European Environmental Policy: The Pioneers*, 1997 (co-edited with Duncan Liefferink); "(Environmental Capacity-Building in) Denmark", 1997.

Hans Th. A. Bressers (1953) is professor of Policy Studies and Environmental Policy at the University of Twente in the Netherlands and scientific director of the Center for Clean Technology and Environmental Policy of that university. Furthermore, he is, *inter alia*, chairman of the Advisory Committee to the Dutch Minister for the Environment for the implementation of environmental policy by local government, and vice chairman of the official permanent Evaluation Committee of the Environmental Management Act which advises the Minister regularly on the efficacy of Dutch environmental policy. He is also chairman of the Dutch Social Science Association for Environmental and Energy Research, SWOME. He chairs one of the two review committees of the Dutch National Science Foundation that judge research proposals in the field of political science, public administration and law, and he is a member of the editorial board of the Dutch policy journal *Beleidswetenschap*. Recent publications in English include *Networks and Water Policy: A Comparative Perspective*, 1995 (co-edited with L.J. Toole and J. Richardson); "The Impact of Effluent Charges", 1995; "Policy Implementation", 1995 (with Arthur B. Ringeling); "Instruments, Institutions and the Strategy of Sustainable Development: The Experiences of Environmental Policy", 1995 (with Kenneth I. Hanf); *Policy Networks and Choice of Instruments*, 1996; "(Environmental Capacity-Building in) The Netherlands", 1997 (with Loret A. Plettenburg).

Bruno Dente is professor of Public Policy Analysis at the University of Venice, Faculty of Urban and Environmental Planning, as well as research director and president of IRS, a private non profit research institute in Milano. His field of specialisation includes institutional building and administrative reform in comparative perspective. In the field of environmental governance he has recently been convenor of a European Science Foundation task force on policy instruments (see B. Dente, editor, *Environmental Policy in Search of New Instruments*, 1995) and is at present the co-ordinator of a concerted action/network called "The Ecological State - Towards a New Generation of Environmental Policies and Institutions" supported within the EU-RTD Programme "Environment and Climate".

Marina Fischer-Kowalski is assistant professor of sociology and head of the department of social ecology at the Institute for Interdisciplinary Research and Continuing Education (IFF) in Vienna. She is, *inter alia*, chair of the board of Greenpeace Austria, member of the committee for the Austrian state award of ecosystem research, and head of the working group on sustainable economy and life styles of the Friedrich Ebert Foundation. Her recent publications include "A Plethora of Paradigms. Outlining an Information System on Physical Exchanges between the Economy and Nature", 1994 (with H. Haberl and H. Payer); "Tons, Joules and Money. Modes of Production and their Sustainability Problems", 1997; *Gesellschaftlicher Stoffwechsel und Kolonisierung der Natur*, 1997 (with H. Haberl et al.); "Fünzig Jahre Umgang mit Natur", 1995 (with H. Payer).

Peter Knoepfel is professor of public policy and director of the Institute for Advanced Studies in Public Administration (IDHEAP) in Chavannes-près-Renens/Lausanne. He is, *inter alia*, president of the Swiss Association of Political Science; member of the group of experts of the national research programme on climate change and natural catastrophes of the Swiss National Research Foundation; member of the group of experts "Environment, Space and Energy" of the Federal Office for Statistics. His recent publications on environmental policy include *Lösung von Umweltkonflikten durch Verhandlung. Beispiele aus dem In- und Ausland*, 1995; *New Institutional Arrangements for the Next Generation of Environmental Policy Instruments: Intra- and Inter-policy-Cooperation*, 1995; *Einführung in die Politikevaluation* 1997 (coedited with W. Bussmann and U. Klöti); *Lernen in öffentlichen Politiken* 1996 (with Ingrid Kissling-Näf and Daniel Marek).

Corinne Larrue is Associated professor at the University of Tours, Centre for Advanced Studies in Urban Planning (CESA). Her major field of research and teaching is policy analysis with emphasis on environmental and regional policies. She is also consultant for OECD in the field of regional policies and environment, associated fellow at the National Research Programme for Cities (PIR-Villes), in charge of urban environmental domain; she is vice-president of the European COST-CITAIR action n° 618, member of the National Commission for the Evaluation of Public Policy in the field of the prevention of natural hazards, and member of the Scientific Commission of the National Air Pollution Research Programme. Selected publications: "Political (un)feasibility of environmental economic instruments", 1995; "Regional Development and the Quality of the Environment - The Experience of OECD Member Countries", 1994; "European environmental policies and environmental protection in France", 1993 (with R. Prud'homme); "Les conséquences environnementales des politiques d'aménagement du territoire: un essai d'évaluation", 1992 (with R. Prud'homme).

Hans-Joachim Luhmann, Dr. rer.pol., is deputy director of the climate policy division, Wuppertal Institute for Climate, Environment and Energy. He is a member of the advisory board for the Representative of the Protestant Church in Germany on Environmental Matters and of the advisory board of the editor of the magazine *Ecological Budget Reform* (Canada). His recent publications on environmental policy include *Die relative Eignung von Projekttypen für Joint Implementation*, 1996; "Energiepolitik und CO₂ Reduzierung auf dem Prüfstand - Reicht der Anlauf von Berlin zum Klimagipfel von Kyoto", 1996; "Entwicklungen und Ergebnisse der EU-Umweltpolitik - Eine Bilanz des Scheiterns", 1996; "Geschichte der Umweltpolitik in Deutschland. Ein Literaturbericht", 1988.

Yu-shi Mao was a senior fellow at the Chinese Academy of Social Sciences and is now the chairman of Unirule Institute of Economics and Professor of economics at the Guangzhou University of Foreign Language and Trade. He is the vice-co-chairman of a Working Group of the China Council for International Cooperation on Environment and Development, and a member of the national steering committee of LEAD PROGRAM (Leadership for Environment and Development). He taught environmental economics at the University of Queensland, Australia, in 1990 and gave lectures on the same subject at Lead Program. His recent publications on environmental issues include *Environment, Ethics, Economics*, 1990; *Evolution of Environmental Ethics: A Chinese Perspective*, 1994; *Socio-economic Conditions for the Development of Renewable Energy*, 1994; *Spontaneous Combustion of Coal in China and Its Environmental Impact*, 1995; *China's Transportation and Its Energy Use*, 1996.

Anna Marson, Dr., is a researcher at the Dipartimento di Analisi Economica e Sociale del Territorio, Istituto Universitario di Architettura di Venezia, where she also teaches within the School of Planning. Among her publications are *Planificazione e ambiente*, 1991; *Tradizione e futuro urbano. La città mediterranea di fronte alla sfida Habitat*, 1996; "Dealing with the problem of eutrophication in the Adriatic Basin: the institutional framework and policies", 1996.

Kenichi Miyamoto is professor at the College of Policy Science at Ritsumeikan University, teaching public policy, environmental economics and urban economics. He is, *inter alia*, representative director of Japan Environmental Council, director of the Centre for the Redevelopment of Pollution Damaged Areas in Japan, President of Japan Institute of Local Government. His recent publications include "Industrial Policy and the Case of Large Industrial Complexes", 1989; *Environmental Economics*, 1989 (in Japanese); *Environment and Development*, 1992

(in Japanese); *Internationalization of Environmental Policies*, 1995 (in Japanese); *Environment and Self Government*, 1996 (in Japanese).

Elim Papadakis is professor of sociology at the University of New England, Australia and in 1997 will take up an appointment as professor of Modern European Studies at the Australian National University. He has been a member of the Australian Research Council since 1994 and was Vice-President of the Australian Sociological Association between 1992 and 1994. His recent publications on environmental issues include *Environmental Politics and Institutional Change*, 1996; *Politics and the Environment: the Australian Experience*, 1993.

Eckard Reh binder is professor for economic and environmental law and director of the Research Center for Environmental Law at the Law Faculty of the University of Frankfurt/Main. He is, *inter alia*, chairman of the German Council of Environmental Advisors and member of the Working Group on Environmental Law, the European Council of Environmental Law and the Commission of Environmental Law of the International Union for the Conservation of Nature and Natural Resources. His recent publications include *Das Vorsorgeprinzip im internationalen Vergleich*, 1991; *Haftung und Versicherung für Umweltschäden aus ökonomischer und juristischer Sicht*, 1992 (co-authored with A. Endres and R. Schwarze); *Umweltzertifikate und Kompensationslösungen aus ökonomischer und juristischer Sicht*, 1994 (co-authored with A. Endres and R. Schwarze); "Self-regulation by Industry", 1995.

Susan Rose-Ackerman is Henry R. Luce Professor of Law and Political Science, Yale University, and Co-director of the Law School's Center for Law, Economics, and Public Policy. She holds a Ph.D. in economics from Yale University, has held fellowships from the Guggenheim Foundation and the Fulbright Commission and was a Visiting Research Fellow at the World Bank. She is the author of *Controlling Environmental Policy: The Limits of Public Law in Germany and the United States*; *Rethinking the Progressive Agenda: The Reform of the American Regulatory State*; and *Corruption: A Study in Political Economy*; and joint author of *The Uncertain Search for Environmental Quality* and *The Nonprofit Enterprise in Market Economies*. Her research interests include comparative regulatory law and policy, the political economy of corruption, public policy and administrative law, and law and economics.

Valdis Seglins, Dr., is senior researcher at the Centre for Environmental Science and Management Studies, University of Latvia. 1981 M.Sc. Geology (Leningrad), 1987 Cand. Sc. in geology and mineralogy, 1993 Dr. geol. (Latvian University), 1989-90 Member of State Nature Protection Committee, 1990-93 Representative of Latvia in the Helsinki Commission (HELCOM), 1990-93 Vice Chairman of the Environmental Protection Committee of the Republic of Latvia, 1993 Ministry for State Reform, 1992-93 Representative of Latvia in the Working Group on Environment for Europe UN/ECE/SAE WP, 1993-present Centre for Environment Science and Management Studies, University of Latvia. Participation in several international research projects of environmental protection, *inter alia*: Environmental Improvements in Latvian Industrial Enterprises; Environmental Standards and Legislation in Western and Eastern Europe: Toward Harmonisation; Environmental History of the Baltic Region. Selected publications: IUCN East European Programme, 1993; Environmental Conditions in Latvia, 1993; International Legal Instruments in Environmental Protection Policy, 1993; What Can be Done on Environmental Protection in a Distressed Transitional Economy, and by Whom? The Case of Latvia, 1993 (with J. Holm and B. Klemmensen).

Albert Weale has been Professor of Government at the University of Essex and co-editor of the *British Journal of Political Science* since 1992. Prior to that he was Professor of Politics at

the University of East Anglia (1985-92), and before that Lecturer in Politics (1976-1985) and Assistant Director of the Institute for Research in the Social Sciences (1982-85) at the University of York. From 1987 to 1990 he was a member of the Politics and Society Research Development Group and a member also of the Research Grants Board of the Economic and Social Research Council. In 1993 he became a Council nominated Fellow of the Royal Society of Arts. In 1995-96 he chaired the Working Party on The Ethics of Animal-to-Human Transplants, established by the Nuffield Council on Bioethics. His research and publications have been concentrated on issues of political theory and public policy, especially the theory of justice and the theory of democracy, health policy and comparative environmental policy. His principal publications include *Political Theory and Social Policy*, 1983; *Cost and Choice in Health Care*, 1988; *The New Politics of Pollution*, 1992; *The Theory of Choice*, 1992 (with others); *Innovation and Environmental Risk*, 1992 (edited with Lewis Roberts) *Environmental Standards in the European Union in an Interdisciplinary Framework*, 1994 (edited with others).

Helmut Weidner, Dr. phil., political scientist, is senior researcher at the Department "Standard-Setting and the Environment" of the Social Science Research Center Berlin (WZB). His major field of research is international comparison of environmental policy and alternative procedures of conflict regulation. He is, *inter alia*, member of the expert committee on the environment of the Swiss National Research Foundation. His recent publications include *Successful Environmental Policy*, 1995 (co-edited with Martin Jänicke); *Basiselemente einer erfolgreichen Umweltpolitik*, 1996; *National Environmental Policies. A Comparative Study of Capacity-Building*, 1997 (co-edited with Martin Jänicke); *Alternative Dispute Resolution in Environmental Conflicts. Experiences in 12 Countries*, 1997 (in preparation).

Ernst Ulrich von Weizsäcker, born 1939 in Zurich, Switzerland, studied chemistry and physics (1965 Diplom, Hamburg University) and biology (1969 Ph.D. Freiburg University). 1969-1972: Interdisciplinary Research at Heidelberg. 1972-1975: Professor for Interdisciplinary Biology at Essen University. 1975-1980: Founding President of the new University of Kassel. 1981-1984: Director at the United Nations Centre for Science and Technology for Development. 1984-1991: Director of the Institute for European Environmental Policy (IEUP) in Bonn. Since April 1991: President of the Wuppertal Institute for Climate, Environment and Energy. Member of the Club of Rome. 1989 he received, together with the Norwegian Prime Minister Gro Brundtland, the Italian Premio De Natura and October 1996 the WWF Conservation Medal. Selected Publications: *New Frontiers in Technology Application: Integration of Emerging and Traditional Technologies*, 1983 (co-edited with M.S. Swaminathan and A. Lemma); *Erdpolitik: Ökologische Realpolitik an der Schwelle zum Jahrhundert der Umwelt*, 1989 (with revised and updated editions in 1990, 1992 and 1994); *Ecological Tax Reform: Policy Proposal for Sustainable Development*, 1992 (with Jochen Jesinghaus); *Klima und Strukturwandel*, 1992 (with Raimund Bleischwitz); *Earth Politics*, 1994 (with editions in Spanish and Japanese 1994); *Faktor Vier. Doppelter Wohlstand - halbiertes Naturverbrauch*, 1995 (with Amory B. and L. Hunter Lovins; English and Spanish editions in 1997).